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ABSTRACT

The Occupational Survival Skills (OSS) Modules were designed to offer high school students an opportunity to develop skills applicable to a wide range of jobs in the work world and to develop positive attitudes, perceptions, and motivations toward work. The primary purpose of this study was to describe and interpret the influence of the OSS Modules on the attainment of occupational survival skills and attitudes toward employment by selected cooperative office occupations students, special needs students and Comprehensive Employment Training Act students. Students were selected as intact classroom groups. Data from classroom observations and interviews with participating teachers and students were collected during a fifteen-week period. Opinionnaires were completed by teachers and students at the conclusion of the fifteen-week period to provide both quantitative and qualitative summary data. The Occupational Survival Skills Information Test and the Career Maturity Inventory Attitude Scale were administered to the students in each program group at the conclusion of the fifteen-week period. The variables of amount of work experience, work plans, and educational plans were found to bear significant relationships to attainment of occupational survival skills. Significant relationships were found between students' attitudes toward employment and the variables of grade level, sex, work plans, and educational plans. (Descriptions of the modules are available in CE 018 556-568, and module tests are in CE 018 569.) (Author/CT)

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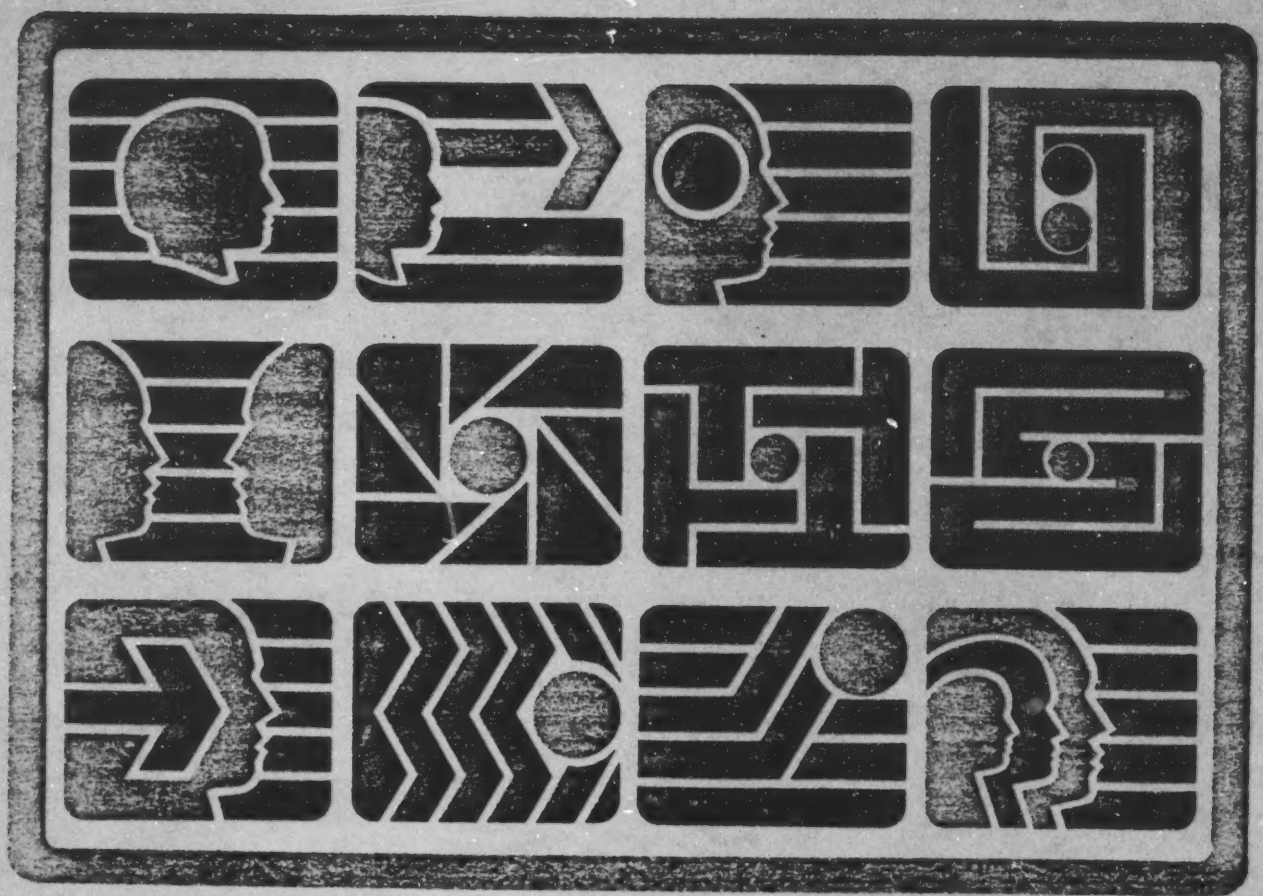

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Phase III: Influences of the Occupational Survival Skills Modules on the Attainment of Skills and Attitudes Toward Employment of Selected High School Students

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ABSTRACT

The curriculum materials entitled, Methods and Materials for Teaching Occupational Survival Skills (OSS), were designed to offer high school students an opportunity to develop skills applicable to a wide range of jobs in the work world and to develop attitudes, perceptions, and motivations toward work. The primary purpose of this study was to describe and interpret the influence of the OSS Modules on the attainment of occupational survival skills and attitudes toward employment of selected Cooperative Office Occupations, Special Needs, and CETA students. Students were selected as intact classroom groups.

Qualitative data from classroom observations and interviews with participating teachers and students were collected by the investigator during a fifteen week period. Opinionnaires were completed by teachers and students at the conclusion of the fifteen week period to provide both quantitative and qualitative summary data.

The Occupational Survival Skills Information Test (OSSIT), designed to measure the attainment of occupational survival skills, and the Career Maturity Inventory Attitude Scale (CMIAS) (Crites, 1973), utilized to measure attitude toward employment were administered to the students in each program group at the conclusion of the fifteen week period. The OSSIT and CMIAS were also administered to a comparative class from each program group to determine any apparent differences in attainment of

occupational survival skills and attitudes toward employment between students who had been exposed to the OSS Modules and students who had not been taught any of the OSS Modules. The data from these test scores were analyzed using analysis of variance.

Significant differences ($p < .01$) in the attainment of occupational survival skills and attitudes toward employment were obtained between program groups.

Significant differences ($p < .05$) were also found in attainment of occupational survival skills between students who were exposed and were not exposed to the OSS Modules. However, the amount of exposure (number of sessions taught from each Module) did not have a significant effect on attainment of occupational survival skills. The effect of exposure to the OSS Modules on students' attitudes toward employment was not significant.

An analysis of the relationship between scores obtained on the OSSIT and on the CMIAS by all students participating in the study resulted in a correlation coefficient of .506 ($p < .01$).

The variables of amount of work experience, work plans, and educational plans were found to bear significant relationships to attainment of occupational survival skills. However, the variables of grade level, sex, and socioeconomic status were found not to bear significant relationships to attainment of occupational survival skills.

Significant relationships were found between students' attitudes toward employment and the variables of grade level, sex, work plans, and educational plans. The variables of amount of work experience and socio-

economic status were found not to bear significant relationships to attitudes toward employment.

The results of this study indicate that if the following conditions are satisfied, the OSS Modules can be used effectively by, and are useful to, both students and teachers: 1) the teacher and students should perceive the OSS Modules as being relevant and be motivated to learn occupational survival skills; 2) adequate classroom time should be allocated to the learning of occupational survival skills; and 3) the students' learning abilities should be compatible with the learning activities contained in the OSS Modules. It appears that the teaching of occupational survival skills is relevant to the current occupational needs and future career aspirations of a wide range of high school students.

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CHAPTER I

Introduction

Importance of the Problem

Work is a fundamental effort of life for individuals in our society. For most people, this effort results in paid employment. Work will remain a very significant factor in the lives of individuals despite changing worker attitudes, changing economic and societal demands, and efforts designed to humanize and redesign it. People not only have to work, in most cases, for economic survival, but also pursue work as the vehicle for their own fulfillment.

In a recent study designed to examine what has happened to work in America during the present century, Levitan (1973) concluded that although there have been far reaching changes occurring in work and its meaning for individuals, there is no foreseeable end to work, no crisis of discontented workers, or no sweeping humanization of jobs on the horizon. The need for individuals to prepare themselves for work will continue to manifest itself into the future.

Part of the responsibility for preparing individuals for work rests with the school. Many writers have recognized the interdependence that exists between the school and society. Changes in the social and economic structures lead to concomitant changes in the educational structure. Feinberg and Rosemont (1975) suggest that education involves the transmission of cultural norms and values and the training of students to take

their place in society. In this way, the school reinforces the images that are dominant in society. Students learn habits that are essential for the maintenance of industrial society. Characteristics such as punctuality, dependability, and loyalty are emphasized either directly or indirectly by the schools. In many respects, the school serves to bridge the gap which exists between the private life of the family and the public work of the society.

In recent years, concern has been expressed that the educational system may not be preparing students adequately for working in society. Pierce (1973) maintains that the school does not provide either job skills or coping skills that enable persons to lead satisfying, self-confident lives. Data from a study designed to determine the key variables associated with students obtaining and maintaining a job after training ("Transition to Work," Associates for Research in Behavior, Inc., 1973) indicated that beyond adequate skill levels and placement opportunities, students need to develop certain attitudes, perceptions, and motivations regarding employment.

Contemporary emphases upon career education and career development suggest that individuals formulate and develop attitudes toward work during their early years in the home and school which are critical to later successful performance on the job. Kazanas (1974) summarized the career education movement as being based upon the idea that students must be given the opportunity to develop positive attitudes toward work within a chosen career. The same point of view was taken by Calhoun and Finch (1976) when they wrote "career education focuses on broad self-realization, social responsibility, and affective value components" (p. 5).

Despite the apparent concern for teaching affective responses toward work, a limited amount of curriculum material is available to teachers and students which offers students an opportunity to develop positive attitudes, perceptions, and motivations toward work. For the most part, educational and training efforts have been directed toward the measurement and improvement of skill development. To attempt to ensure that educational programs concerning work are fulfilling individual student needs and preparing successful and satisfied workers, educators must be concerned about the attitudes, perceptions, and motivations of students toward work. These attributes appear to be important factors in the student's orientation to work, job satisfaction, and job production. The extent to which curriculum materials influence and affect students' attitudes, perceptions, and motivations toward employment needs to be investigated.

Statement of the Problem

The essence of occupational survival for the individual is the attainment of skills necessary to maintain an occupation which may lead to a meaningful, satisfying, and productive working career. The development of attitudes, perceptions, and motivations toward various aspects of work may be the initial step which students need to take in order for them to achieve occupational competence. Pilot testing and initial field testing of the Occupational Survival Skills curriculum materials in selected Illinois high schools during 1975-76 indicated a favorable acceptance by both teachers and students. However, no attempt was made to determine the influences of the curriculum materials on students' attainment of occupational survival

skills or on their attitudes, perceptions, and motivations toward work.

Curriculum materials and teaching methods that purport to help prepare students for work need to be evaluated regarding their effectiveness and usefulness for particular groups of students. It is unlikely that all curriculum materials will have the same appropriateness for all types of students.

To provide useful and practical information, evaluation of work-oriented curriculum materials must be broader than the narrow concept of measurement of progress toward specified objectives. Characteristics of the learning environment, characteristics of the learners, and the interaction of students and teachers within that learning environment need to be described. Measurement and prediction are useful in the evaluation of curriculum materials, but description and interpretation should also be a primary concern. To be of practical value, an evaluation of curriculum materials must describe where and how the materials are utilized; advantages and disadvantages of the materials as seen by those involved directly; and how students' knowledge of the content of the curriculum materials and their attitudes toward employment are affected.

Background of the Study

Focusing on the need for career education curriculum materials, Nelson (1977) directed a project to develop curriculum materials designed to offer high school students an opportunity to develop attitudes, perceptions, and motivations toward work. The curriculum modules entitled Methods and Materials for Teaching Occupational Survival Skills were designed to be used either as a set of twelve related modules or independently.

The Occupational Survival Skills Project was sponsored by the Research and Development Section, Department of Adult, Vocational and Technical Education, Illinois Office of Education, and conducted by the Department of Vocational and Technical Education, University of Illinois. The purpose of the OSS project was to develop curriculum materials for teachers to better equip high school students with the basic knowledge, competencies and behaviors needed to maintain their future occupations successfully and to cope with a changing occupational environment effectively.

Phase One of the OSS project consisted of four research studies designed to provide basic information leading to the identification of the skills and knowledge deemed necessary for occupational survival. O'Neil (1976) studied worker perceptions of skills necessary for survival in the world of work:

> Through consensus of respondents, the following skills appeared to be extremely important for occupational survival regardless of occupational classifications: 1) being dependable, 2) giving an honest day's work, 3) knowing what is expected of you, 4) maintaining good health, and 5) managing time and materials efficiently. Aside from these extremely important skills, twelve additional skills were identified. . . as being important for occupational survival: 1) getting along with people with a variety of personalities, 2) working as a team member, 3) understanding written information, 4) having basic writing skills, 5) knowing your own abilities, strengths and weaknesses, 6) being loyal to the organization for which you work, 7) making independent decisions, 8) using initiative and imagination, 9) locating information, materials and equipment, 10) working without close supervision, 11) working under tension or pressure, and 12) adjusting to various work situations (pp. 93-94).

This initial study was the foundation for further research regarding the opinions of students, parents and school personnel concerning the teaching

of occupational survival skills.

Scanlan (1976) determined the opinions of students and parents concerning the teaching of occupational survival skills. The following nine skills were ranked as highly important: 1) basic speaking skills, 2) basic arithmetic skills, 3) initiative and imagination, 4) knowledge of employer expectations, 5) getting along with a variety of people, 6) dependability, 7) maintaining good health, 8) basic writing skills, and 9) punctuality. This study offered evidence that teaching the above skills would receive wide acceptance by both students and parents.

Frison (1975) studied the opinions of school personnel (teachers, counselors, and administrators) concerning the teaching of occupational survival skills. The findings of the study offered evidence that school personnel are in agreement with students and parents as to the importance of teaching certain occupational survival skills.

Richardson (1975) identified the instructional strategies teachers would be most likely to use to teach groups of skills necessary for survival in the world of work. Group discussion, problem solving, demonstrations and supervised work experiences were strategies that were identified by teachers most frequently. These strategies were identified by teachers as being student centered and participatory in nature. Regarding the teaching and subsequent student identification of personal values, attitudes and expectations, the group discussion strategy was identified by the teachers as the most likely method to be utilized.

The major task of Phase Two of the OSS project was the development of

instructional modules for twelve curriculum areas. The following are the instructional modules developed during Phase Two of the OSS project: 1) Working in Organizations, 2) Motivation for Work, 3) Understanding Self, 4) Interpersonal Relations, 5) Effective Communication, 6) Using Creativity at Work, 7) Problem Solving, 8) Authority and Responsibility, 9) Leadership, 10) Coping with Conflict, 11) Coping with Change, and 12) Adapting and Planning for the Future.

The final report on Phase One of the OSS project (Nelson, 1976) described a module as a standardized and relatively independent unit of teaching-learning materials that is part of a set of related units. Each module was designed to include an overview of the topic, module objectives, teaching-learning strategies and activities, and supportive resource materials. The Modules were designed mainly for the teacher who would use them as teaching guides.

Purpose of the Study

The primary purpose of this study was to describe and to interpret the influences of the Occupational Survival Skills Modules on selected Cooperative Offices Occupations, Special Needs, and CETA (Comprehensive Employment and Training Act) students' attainment of occupational survival skills and attitudes toward employment. Additional purposes were to determine: 1) the effect of amount of exposure to the OSS Modules on students' attainment of occupational survival skills and their attitudes toward employment, 2) the relationship between attainment of occupational survival skills and

attitudes toward employment, 3) the relationships between the variables of grade level, sex, amount of work experience, socioeconomic status, work plans, and educational plans and students' attainment of occupational survival skills and their attitudes toward employment, and 4) the differences in students' and teachers' opinions of the usefulness and effectiveness of the OSS Modules.

The three categories of students selected for the study tend to represent the broad spectrum of students for whom the modules would appear to be most useful and effective. Selection of these categories of students allowed for concentration on population characteristics such as age, goals and background rather than just on titles of programs. Descriptions, interpretations, judgments and quantitative data collected were utilized for generalization to three different student populations with regard to the effectiveness and usefulness of the Modules.

Limitations

The following limitations of this study should be considered in evaluating the results obtained:

1. Since this study followed the static group comparison design, there were limitations related to equivalence of groups.
2. Students were selected as participants in this study as intact classroom groups in a non-random manner.
3. Student responses may have been affected by the knowledge that they were involved in an experimental program.

Definition of Terms

Terms used in this study are defined operationally as follows:

Occupational Survival Skills. The basic knowledge, traits, and competencies an individual must possess in order to attain a meaningful, satisfying, and productive working career (O'Neil, 1976).

Module. A standardized and independent unit of teaching-learning materials that is part of a set of related units (Nelson, 1976).

Session. A lesson within a module that requires approximately fifty minutes to complete containing an objective, learning activity, and follow-up section.

CHAPTER II

Review of Literature

Teaching skills that are necessary for survival in the work world is a primary concern of many educators. The need for individuals to prepare themselves for work will continue to manifest itself in the future as various changes in technology bring about changes in occupations. While in school, individuals need to be given an opportunity to formulate and develop attitudes toward work which will lead to successful performance on the job as they adapt to new work situations.

This study is designed to describe the influences of the OSS Modules on the attainment of occupational survival skills and attitudes toward employment of selected high school students. The information presented in this chapter identifies the relevant research and literature concerning the major aspects of the study. Topics are presented in the following sequence:

1. The Meaning and Value of Work
2. Attitudes Toward Work
3. Teaching Affective Responses Toward Work
4. Attitude Measurement
5. Trends in Curriculum Evaluation

The Meaning and Value of Work

The term "work" means many things to different people. Throughout history various meanings have been associated with work. Therefore, the

meaning different people associate with work will vary considerably. Kazanas, et al. (1973) reviewed the literature pertaining to the meaning and value of work to determine the following factors that are inherent in a pragmatic definition of work:

1) Work is continuous and leads to additional activity.

2) Work results in a production of goods and/or services and in some instances carries the connotation of the "efficient" production of goods or services.

3) Work is performed for a personal purpose, but these purposes may be: (a) intrinsic-performed for self-satisfaction; and/or (b) extrinsic-performed for pay or to secure other forms of remuneration.

4) Work requires physical and/or mental exertion.

5) Work is performed on a regular or on a scheduled basis.

6) Work has socio-psychological aspects in which certain relations must exist. Among those are: (a) the macro-sociological aspect which deals with the relations of the worker to the society as a whole; and (b) the micro-sociological aspect which relates to the worker's relationships within his immediate society of fellow workers.

7) Work involves a degree of constraint which is either externally or internally applied (p. 6).

To be of practical value to a research study, any definition of work must be viewed in the context of the meaning and value of work possessed by the group of individuals being investigated.

In recent years, concern has been expressed that young people entering the work force may perceive the meaning and value of work differently than did previous generations. The traditional work ethic was based on a variety

of religious, social, and economic beliefs and assumed that work, in or of itself, was good for people. All honest work possessed dignity and worth. In general, the related literature and research indicates a shift from the traditional work ethic to a complex set of work values. Zytowski (1970) pointed out that although these work values have not been defined clearly, they appear to be extremely important to the development of satisfied workers. Barlow (1973) maintained that social changes have not ruled out the work ethic, but they have diminished greatly the role of the family in providing work experience.

Hoyt, et al. (1973) maintained that it is becoming increasingly clear that our post-industrial society is gradually replacing the traditional concept of the work ethic with the concept of work values. According to Kazanas, et al. (1973) "the loss of the personal value of work in modern automated factories is reflected in the increased worker absenteeism, worker frustration, feather-bedding and the lack of importance workers place on work which appears to them to be meaningless (p. 7)." Parker (1971) and Hoyt (1973) supported this notion by claiming that most people in a modern industrial society associate work with a means of earning a living. Mills (1953) argued that the primary value of work is only in income, status, and power.

However, a number of researchers have found that some personal values are still satisfied through work. Parker (1971) found that the value of work has not been restricted to earning the necessities of life. Goldhammer and Taylor (1972) also found broader implications for the value of work

than just financial reward. They stated that: "Work has always had the potential of meeting more than the economic needs of man. It also provides a means of meeting the broader social and psychological needs among which are needs for social interaction, personal dignity, identification and human relationships" (p. 68). The importance workers place on the personal value derived from work itself is emphasized in a Department of Labor survey of working conditions (Sheppard and Herrick, 1972; Price, 1972). A national sample of workers ranked work itself above pay as the aspect of their job most needing improvement.

The concept that work values have remained stable for high school age youth was supported by Anderson and Bosworth (1970). They compared the occupational values of ninth grade students in 1970 with the occupational values of ninth grade students in 1958. The findings indicated that the work values of students over this period of time have remained fairly stable.

To determine whether occupational level has an effect on work values, Centers and Begental (1966) studied whether high level workers valued intrinsic factors and low level workers were extrinsically oriented. The findings revealed that white collar workers valued all the intrinsic items more than the blue collar workers. Also, the blue collar workers valued the extrinsic items significantly more than the white collar workers. The researchers concluded that "interpreting our results in terms of Maslow's need-hierarchy, it could be said that individuals in the lower level occupations are more likely to be motivated by lower-order needs because these are not sufficiently gratified to allow higher order needs to become prepotent" (p. 197).

Using airmen and noncommissioned officers in the U. S. Air Force, Blood (1969) conducted a correlational study to determine whether Protestant Work Ethic oriented persons experienced higher job satisfaction than non-work oriented persons. The results of the study indicated that the more an individual agreed with the work ethic, the more his degree of job satisfaction. Rather than job satisfaction influencing work values, the author maintained that the work values precede and influence job satisfaction.

In a study entitled Youth and the Meaning of Work (Gottlieb et al., 1972) it was discovered that a changing work ethic was present among the college students surveyed. The subjects placed an emphasis on the intrinsic nature of their work as it related to other important aspects of their lives. The subjects de-emphasized the importance of money, power, and social prestige and noted that work should be of greater personal significance and of greater value to society. The findings of the study indicated a work value system that demanded more meaning and self-fulfillment from work. A significant difference was reported between the college students and their fathers. The fathers placed emphasis on salary and security while the college students placed emphasis upon the job itself and purposes of the work.

Attitudes Toward Work

A number of researchers and authors have addressed the topic of attitudes toward work. Considering that the attitude of an individual is probably "the most distinctive and indispensable concept in American social psychology" (Allport, 1968, p. 59) it is characterized by a high degree of ambiguity and confusion in the literature. Various concepts, including stereo-

types, prejudice, ethnocentrism, opinions, intentions, attraction and liking have been incorporated at different times under the label of attitude. Fishbein and Ajzen (1975) suggested that the inclusion of these various concepts undoubtedly has led to some of the confusion and ambiguity surrounding the concept of attitude, and it is hardly surprising that few investigators agree on an explicit definition of attitude.

Various definitions of attitude, representing different theoretical viewpoints, have been formulated: an effect for or against a psychological object (Thurstone, 1931); a mental and neural state of readiness, organized through experience, exerting a directive and dynamic influence upon the individual's response to all objects and situations with which it is related (Allport, 1935); am implicit drive-producing response considered socially significant in the individual's society (Doob, 1947); a multi-dimensional construct consisting of cognitive, affective, and conative components (Smith, 1947).

Khan and Weiss (1973) have attempted to provide an integration of the various definitions of attitude:

> Despite the many ways in which attitudes are defined, the commonality among the various definitions is illustrated by noting that attitudes are selectively acquired and integrated through learning and experiences; that they are enduring dispositions indicating response consistency; and that positive or negative affect toward a social or psychological object represents the salient characteristic of an attitude (p. 761).

From a practical viewpoint, attitudes can be termed as states of mind or feelings toward something. Attitudes toward work, then, may be termed as

states of mind or feelings held by individuals concerning the role of work in a society and in their everyday lives. Kroll, et al. (1970) indicated that attitudes are functions of the environment and experiences which the individuals may incur. They stated that "attitudes are organized and consistent modes of thinking, feeling and reacting to an object that evolves through evaluational interaction of individual and environment" (p. 13). Super, et al. (1957) supported this concept of attitude development when they stated that attitudes are affected by the environment and are, to a large extent, a reflection of it. Attitudes are learned from the words and actions of others who are significant to the individual and from various events.

Yoganarasimhih (1957) conducted a study to determine some of the relevant factors which influence the development of work attitudes. Using previous research performed by Super as a base, the study determined that socioeconomic and family patterns were important and that crystallization of work values probably occurred during adolescence.

Using Herzberg's motivation (intrinsic)—hygiene (extrinsic) theory, Malinousky and Berry (1965) surveyed blue collar workers to determine which variables were positively related to job satisfaction. In their findings, the authors implied that occupational level has an effect on work attitudes. Higher level occupational groups tend to place prime importance on motivator aspects of the work setting which afford opportunities for personal growth (promotions, challenging work, etc.). In contrast, semi-skilled and unskilled

blue collar workers are very concerned about and dependent upon hygiene elements in their work environment (salary, work conditions, etc.).

The conclusion that many young people are not developing attitudes toward work from their environment or from significant others or events was expressed by Bottoms (1972):

> Work as an activity has become increasingly less a part of the lives of youth until now it is chiefly an activity engaged in behind fences and brick walls. Too often the results have been that many youths are reaching the age for entering work without. . . the job attitudes. . .necessary for job success. . .(p. 16).

Bottoms (1972) pointed out that Fulmer, in a study of 232 occupations in Louisville, Kentucky, confirmed that work attitudes were one of the major prerequisites for many jobs.

Teaching Affective Responses Toward Work

The responsibility for orienting people to the world of work rests increasingly more with the schools. This responsibility was stressed by Hoyt (1972) and by an American Vocational Association and National Guidance Association position paper (1973). Venn (1964) pointed out that "technology has created a new relationship between man, his education and his work, in which education is placed squarely between man and his work." This new relationship was supported by Bottoms (1972):

> The need for the school to initiate activities designed to meet the career development needs of youth at different age levels is supported by several changes that have and are occurring in our society.

> First, as our society has progressed from a simple to an exceedingly complex society, we have virtually eliminated the traditional means by which adolescents develop into working adults. In former years youth were constantly surrounded by and early involved in work. However, with the passing of the agrarian culture . . .work as an activity has become increasingly less a part of the lives of youth until now it is chiefly an activity engaged in behind fences and brick walls (p. 6).

Borow (1966) has concluded that formal education has become more important as the social structure has changed.

Many writers and researchers have concluded that the schools have not fulfilled their responsibility. Bailey and Stadt (1973) contended that "the school's responsibility for assisting individuals with career planning, decision-making, and preparation for entrance into employment has been almost totally ignored." Marland (1972a) stated that there is increasing segregation between students and the world of work and that many students have little or no formal contact with, or preparation for, the world of work.

Swanson (1967) found evidence that there are problems in the transition from school to work. He found that poor attitudes toward work and working, lack of responsibility and maturity, and lack of knowledge of the real demands of work were each reported by more than forty percent of the study sample.

According to the concept of Job Readiness Posture (Associates for Research in Behavior, Inc., 1975) there are three conditions that must be

met before individuals can be considered "work ready" or able to make the transition from training to work successfully. First, individuals must be proficient at a saleable skill for which there are job opportunities available. Second, the potential workers must be able to cope with barriers which would prevent them from going to work. Examples of barriers to work would be medical problems or lack of parental acceptance. Third, individuals must perceive a net personal gain from going to work. The last two conditions involve the potential workers' perceptions of the attractiveness of work and the personal losses and barriers involved in going to work. These three factors (attraction, loss, and barrier) comprise the individual's job readiness posture. The researchers concluded that "these conditions for work readiness apply to all individuals who are transitioning to a fully employed status regardless of whether they were previously employed, unemployed, underemployed or students" (p. 16). The job readiness posture may then be defined as a trainee's attitudes, perceptions and motivations as they have impact on his or her ability to obtain and maintain a job (Associates for Research in Behavior, Inc., 1973).

A special task force reported to the Secretary of Health, Education and Welfare (Work in America, 1972) that most young people simply do not know what to expect from work or what work will require them to give. The report maintains that the schools can dispel some of the resulting unreal expectations about work that are held by many young people, thus avoiding much

of the frustration and disappointment they feel upon entering the work force. According to the report, when the interrelationships between work and education are explored, the following shortcomings become evident:

1. The market value of education has driven out its other values. One consequence of this has been to require needlessly, ever-higher credentials for the same work.

2. Jobs have failed to change in step with the increased educational attainments and concomitant aspirations of the new work force.

3. Vocational education in the high schools has failed to give students useful skills or place them in satisfying jobs.

4. We have largely neglected the educational needs of older workers.

5. The shcools themselves are a workplace, influenced by, and influencing, other workplaces. As such, the schools would benefit from a redesign of their work.

6. The high schools have not yet discovered a proper role for themselves to play in "career education" (p. 134).

These shortcomings have special implication for vocational educators who have the responsibility of developing workers who can perform successfully on the job with satisfaction to themselves and their employers. The shortcomings are also of special importance to the entire career education movement which is based on the idea that students must be given the opportunity to develop positive attitudes toward work and choose a career which is commensurate with their interests and abilities. An individual's attitude toward the meaning and value of work is an important factor in successful adjustment from school to work.

Many recommendations have been made for educators to teach work attitudes. Khan and Weiss (1973) have stated that in terms of formal responsibility for the development of appropriate and healthy social and educational attitudes, the school along with the family has been seen as the primary institution for teaching desirable affective tendencies. According to the American Vocational Association Task Force reporting on career education, the responsibility of career education is to help individuals to develop: "favorable attitudes toward the personal, psychological, social and economic significance of work (and). . .knowledge, skill and attitudes necessary for entry and success in a career" (1972, p. 12).

Statements of objectives for formal education indicate that attitudes constitute important outcomes of education. Marland (1971b) emphasized the need for positive work attitudes and stated that the function could be performed by career education. Bottoms (1972) stated that "the total school should be involved in the creation of an environment wherein students do, in fact, acquire skills, knowledge, understanding and attitudes necessary for career development" (p. 16). Osipow (1972) supported the development of programs to help people develop attitudes enabling them to make better decisions concerning work. He stated that "general attitudes toward work itself can be elicited, shaped, refined and internalized, all of which will permit the individual to potentially deal more effectively with the vocational development tasks at the time when these become more inconsistent and overt" (p. 16). Herr (1969) indicated that direct and systematic methods of developing students' attitudes about themselves and occupations are needed in United

States education in addition to the development of marketable skills.

The affective outcomes of education have been emphasized in the literature and research relating to the process of evaluating instructional and counseling programs. Bovee (1967) conducted a study using two experimental groups, one with pre-counseling plus counseling and the other with counseling only, as compared with an uncounseled control group. He reported significant gains in vocational attitude maturity for the two experimental groups. Gilliand (1966) performed a similar study involving a treatment consisting of thirty-six one-hour weekly group counseling sessions in which the subjects discussed their feelings about school and work. Significantly greater gains in attitude maturity were obtained for the experimental group when compared with the control group.

Support has been found for the hypothesis that occupational information will increase vocational attitude maturity (Goodson, 1969). In a study showing television presentations of occupational information to elementary and junior high school students, Beinaber and Case (1972) reported significantly more positive attitudes among the students after viewing the presentations than before viewing the presentations.

However, Khan and Weiss (1973) suggest that in practice, most classroom teaching is concentrated on the achievement of cognitive objectives. They maintain that the assumption is often made that students will acquire relevant affective responses as a result of cognitive learnings. If desirable affective responses toward work are to be achieved as a result of the educational process, relevant formal learning situations have to be developed and

the effects of such learning experiences will have to be appraised systematically. Schools can meet their responsibility by including deliberate strategies for teaching affective responses toward work within educational programs.

Kazanas, et al. (1973) after reviewing and synthesizing the literature regarding the meaning and value of work, stated that:

> It appears that there is a growing concern among many social scientists, writers, educators, leaders in industry and labor, and others that the youth of America today may not be developing a meaningful and well-defined "work ethic" as was consistently apparent in older generations. (Also) It is becoming increasingly clear that more problems will arise as students make the transition from school to work; thus the responsibility of the school to provide more emphasis on the value of work in the curriculum(s) for all students will tend to increase (pp. 56-57).

The authors also placed emphasis on the role of vocational and technical education to reduce the "shock" in the transition from school to work and make this transition as smooth as possible.

Education has become one of the major institutions in society charged with the responsibility for preparing people for work. Affective responses toward work must be taught because the work which people do determines to a great extent their psychological, social and economic security and their satisfaction in life.

Attitude Measurement

The emphasis of much of the present-day curriculum development is on the need to change or develop attitudes of students. Tawney (1976) maintained that this emphasis has emerged as curriculum development has attempted to cater to students in the lower ability ranges. Much of the emphasis on

teaching and developing positive attitudes toward work has emerged from the career education movement (Marland, 1971; Bottoms, 1972; Osipow, 1972; Herr, 1969; Hoyt, 1973).

The central problem in assessing attitudes is that the link between professed attitudes and actual behavior may not be straightforward. Tawney (1976) supported this contention when he stated "research has show that attitudes measured by pen-and-paper tasks predict but poorly, decisions made in real life. Actions are determined by group expectations, the individual's perception of the importance of the action for his own well-being, and other social considerations" (p. 67). Recognizing these problems Campbell and Fiske (1959) have recommended that researchers attempt to obtain the same information by using different kinds of methods to check on the possibility that the data collected may simply be a reflection of the methods of measurement.

Different techniques of data collection on attitudes of individuals are available. In a review of research published between 1968 and 1970, Fishbein and Ajzen (1972) found more than 500 different procedures designed to measure attitudes. However, the measurement of attitudes has traditionally involved the use of attitude scales on which individuals indicate their degree of agreement with various statements. The most frequently used procedure (Khan and Weiss, 1973) for measuring attitudes has been the administration of a collection of questions or statements to individuals. A variety of methods for scaling attitude statements and scoring responses has been developed.

One general method of attitude scaling has been presented by Thurstone (1927). The Thurstone method employs subjects who act as judges of the relative favorableness of attitude statements. These already scaled statements are then presented to the subject whose attitude is to be assessed. The basic assumption of the Thurstone method is that the values obtained from one sample of judges will be the same as the values obtained from another sample of judgments. Research has shown that as long as the judges are not extremists on the particular attitude continuum, this assumption is generally true.

Another method of attitude scaling, called summated ratings, was developed by Likert (1932). Attitude statements are given a value determined from the data from the sample of persons whose attitudes are being studied. Triandis (1971) summarized the Likert method of summated ratings into the following steps. A number of statements are given to a sample of individuals like those who are to be studied. Subjects are asked to respond to each statement in terms of a five-point scale defined by the alternatives: (a) strongly agree, (b) agree, (c) uncertain, (d) disagree, and (e) strongly disagree. The responses of the individuals are first scored a priori using the investigator's best judgment of whether the statement is positive or negative toward the attitude object. The most favorable 25 percent and the least favorable 25 percent of the individuals are then separated into a favorable and unfavorable group. These groups are reasonably pure and consist of individuals who know where they stand in relation to an attitude object. The responses of the favorable group to each attitude statement are

then compared with the responses of the unfavorable group. If the attitude statement is a good one, it will discriminate significantly between the two groups.

The twenty or so most discriminating items constitute the Likert scale. The scale can then be given to the sample of subjects to be studied whose attitude scores can be computed. Responses to each item are scored from 1 to 5. Strong agreements with favorable items are given a score of 5, and strong disagreements with these items are given a score of 1. Scoring is reversed for unfavorable items so that disagreement with an unfavorable item results in a high score (Fishbein, 1975). Likert's method of summated ratings attempts to ensure that ambiguous statements as well as statements that elicit responses based on factors other than the attitude under consideration are eliminated.

A third method of measuring attitudes, scalogram analysis, was developed by Guttman (1944) to check on the unidimensionality of a set of attitude statements. Using the Guttman scale, if it is known that a person endorses a very favorable item, there is no need to check whether less favorable items have been endorsed; it follows from the nature of the scale that less favorable items would also be endorsed. Given a set of attitude statements that form a Guttman scale, an individual who obtains a higher rank or score than another person must rank just as high or higher than the other person on every item. The Guttman technique involves the analysis of the responses of approximately 100 individuals to a set of attitude statements. An inconsistent judgment occurs when a person who has accepted several highly

favorable statements also accepts a statement that is assumed to be unfavorable. Statements that produce too many inconsistent judgments are assumed to belong to a different attitude continuum from that of the majority of the statements and are eliminated from further consideration. The elimination of statements in this manner results in an attitude scale comprised of statements that give very few inconsistent answers. Subjects to be studied can be asked to respond to these items by agreeing or disagreeing, and it is possible to place them unambiguously on the attitude continuum.

The scale-discrimination method of attitude scaling (Edwards and Kilpatrick, 1948) combines Thurstone's and Likert's procedures for evaluating the discriminatory power of individual items and Guttman's criteria of scalability (Khan and Weiss, 1973). The resulting statements should be unambiguous, discriminating, and fall on a unidimensional continuum.

Recently, a new approach to the investigation of attitudes, the semantic differential technique, has grown in use. The semantic differential technique (Osgood, Suci and Tannenbaum, 1957) was developed originally for measuring the meaning of concepts. The semantic differential has been strongly recommended for attitude measurement because of its ease of construction and versatility for measuring the affective components of attitudes (Fishbein, 1967; Heise, 1970). The subject is asked to react to an object, person, or concept on a series of scales bound by polar adjectives. Three major independent dimensions underlie the judgments made by subjects: evaluation (the object is good, fair, clean, etc.), potency (the object is strong, large, powerful, etc.), and activity (the object is fast, active, etc.). Using these scales, it is possible to measure the affect experienced by the subject toward the object, person, or concept.

Another means of assessing attitudes is the use of a questionnaire. A closed question provides the individual with a set of response categories and requires that the person choose the alternative most clearly in agreement with his or her own attitudes. The open-ended item requires that the individual respond in his or her own words (Wentling and Lawson, 1975). Attitudinal data collected through the use of a questionnaire is often supplemented by conducting interviews with respondents. According to Tawney (1976) "the mainstay of all feedback is the personal interview. . . (and) could justly be regarded as the basic technique of evaluation" (pp. 60-61).

Within the context of curriculum evaluation, the measurement of attitudes has become an increasingly important activity. This emaphsis has emerged as curriculum developers strive to increase motivation within the schools and develop more effective learning experiences. Evaluators, therefore, not only want to know what students' attitudes are toward the curriculum materials and the subject, but more important, whether attitudes have changed because of the introduction of the curriculum materials.

Trends in Curriculum Evaluation

The process of educational innovation has undergone considerable change during the past twenty years. A review of the literature indicates that a parallel change in the methodology of evaluation has occurred. New concepts and ways of thinking about evaluation have emerged. Many of these concepts are directly applicable to curriculum evaluation and offer relevant perspectives on curriculum evaluation as a fundamental aspect of curriculum development.

The literature regarding curriculum and program evaluation indicates that the emerging characteristics, definitions, and ideas about evaluation are changing significantly. A traditional definition limited evaluation to professional judgment, such as the judging of a lesson plan by an expert. Another common definition maintained that evaluation was the comparison of student performance to specified objectives or desired competencies (Wentling and Lawson, 1975).

Recently, two more widely accepted definitions of evaluation which are less limiting have been proposed. The Phi Delta Kappa Commission on Evaluation stated: "Evaluation is the process of delineating, collecting, and providing information useful for judging decision alternatives" (Stufflebeam, et al., 1971). This definition emphasizes evaluation for decision making and necessitates close communication and a sound working relationship between evaluator and decision maker. The Phi Delta Kappa definition makes a distinction between the role of the evaluator and the role of the decision maker. The evaluator does not make judgments but is viewed as an information gatherer.

A quite different definition of evaluation offered by Worthen and Sanders (1973) focuses more on evaluator judgment: "Evaluation is the determination of the worth of a thing. It includes obtaining information for use in judging the worth of a program, product, procedure, or objective or the potential utility of alternative approaches designed to attain specified objectives." This definition of evaluation suggests that evalu-

ation is concerned with not only the systematic collection of data but also the analysis of data to determine the worth of both program processes and products. Both the Phi Delta Kappa and Worthen and Sanders definitions require the collection and reporting of evaluative data. The main difference between the definitions lies in how the results are presented to the decision makers, either as data alone or data accompanied by judgments of worth. These definitions are pertinent to the following central issues of curriculum evaluation: (1) the purpose of curriculum evaluation, and (2) the appropriate strategy for curriculum evaluation.

To clarify the purpose of curriculum evaluation, Scriven (1967) attempted to classify various evaluation strategies by making a distinction between the goals of evaluation and the roles of evaluation. Evaluation goals always include the estimation of merit, worth or value of the curriculum product. On the other hand, the roles of evaluation can vary considerably. One role of evaluation may be to aid in the process of curriculum development. In keeping with this method of classifying evaluation strategies, Scriven distinguished between summative evaluation (the determination of worth of a finished product) and formative evaluation (evaluation used to improve the product while it is still fluid).

Concerning the purpose of evaluation, Steele (1973) identified the following as valuable new ideas concerning evaluation: first, program evaluation is a process rather than a procedure. Evaluation is most useful when it is applied as a process or way of decision making. Second, program evaluation is more than examining the achievement of objectives. Assessing

the extent to which instructional programs attain their objectives is not the only dimension of evaluation. Evaluators are beginning to look beyond the accomplishment of stated objectives to the worthiness of the objectives themselves and to unanticipated program outcomes.

With regard to appropriate strategies for curriculum evaluation, most specialists in educational testing and measurement believe that the impact of a curriculum can be evaluated through the use of measurement instruments. Many evaluation specialists do not agree that this strategy of curriculum evaluation is appropriate. Stake (1967a) maintained that the fluidity of our experiments and the bluntness of our instruments deny us the capability of measuring either the quantity or quality of impact. Effort should be channeled toward observation and judgment rather than attempting to improve the precision of measurement. According to Stake, a complete evaluation consists of two types of data: (1) objective descriptions of goals, environments, personnel, methods, content, and outcomes, and (2) personal judgments as to the quality and appropriateness of these elements.

An evaluation should be designed to generate both descriptive and judgmental data. Both description and judgment are essential (Stake, 1967b)—in fact, they are the two basic acts of evaluation. Scriven (1967) maintained that the evaluator is best qualified to judge and, therefore, must be the one to make judgments. However, this position is reasonable only if it is assumed that evaluator judgments reflect the judgments of individuals who are actually using the curriculum materials in the classroom.

Evaluator judgment during an evaluation should be a synthesis of the composite teacher and student judgments that have been collected. In this respect, the evaluator is assigned the task of collecting, sorting and synthesizing information.

Grobman (1968) categorized the most frequently used curriculum evaluation strategies as reviews, school visits, teacher feedback, questionnaires, and tests. A curriculum evaluation should include classroom visits for the purposes of obtaining direct feedback and collecting general impressions. Interviews may also be arranged with students on an individual or group basis to obtain students' reactions to curriculum materials. Teachers may be asked to write frequent periodic reports, either structured or open-ended in nature, regarding new curriculum materials. Valuable information can be gained from questionnaires completed by students, parents, and various school personnel (Grobman, 1968).

Recent changes and development in evaluation strategy appear to have resulted in two originally distinct approaches tending to converge. On one hand, the inadequacy of the "measurement of objectives" approach gave rise to strategies with more emphasis on qualitative description. On the other hand, criticisms of "evaluation by opinion" led to strategies in which more objective judgments are made (Harlen, 1976). While there are a number of different approaches to evaluation, a single approach may not be adequate by itself. All of the possible approaches to evaluation are not known. Neither has the best approach to evaluation been identified.

This review of various areas of literature has shown that an individual's attitude toward employment is an important factor in successful adjustment from school to work. Literature has been reviewed which indicates that education has become one of the major institutions in society charged with the responsibility of preparing people for work. Inconclusive results regarding what is needed to influence students' attitudes, perceptions, and motivations toward employment increase the importance of determining the effect upon students' vocational attitude maturity of the Occupational Survival Skills Modules used in this study. A number of possible approaches to evaluation have been reviewed. Chapter III of this study presents the approaches utilized to determine the influences of the OSS Modules on attainment of occupational survival skills and attitudes toward employment of selected groups of high school students.

CHAPTER III

Execution of the Study

Research Design

The experimental research design utilized in this study is termed the static-group comparison. In this design, a group that has experienced a treatment is compared with one which has not for the purpose of establishing the effect of the treatment (Campbell and Stanley, 1963). This design was selected because random selection of subjects was impractical in that the treatment involved a classroom situation for a period of approximately fifteen weeks.

Qualitative data were collected throughout the study by observation of and interviews with participants. These data were used to supplement, verify, or further explain quantitative data collected. Characteristics of the learning environment, characteristics of the learners, and the interaction of students and teachers within that learning environment are described. The approaches utilized in this study to evaluate the effectiveness and usefulness of the OSS Modules were designed to identify the advantages and disadvantages of the materials as seen by those involved directly, and to identify how students' attainment of occupational survival skills and their attitudes toward employment were affected.

Participants

Students from the following program groups were selected to participate in the study:

1. Cooperative Office Occupations

2. Special Needs (Secondary Work Experience Program)

3. Comprehensive Employment and Training Act (CETA)

Students from these three program groups were selected because they tend to represent the broad spectrum of students for whom the Occupational Survival Skills (OSS) Modules would appear to be most useful and effective. By concentrating on these three categories of students, the descriptions, interpretations, judgments and quantitative data collected during the study were used to make generalizations to three different student populations. One teacher from each of the program groups who had expressed a desire to use the Modules in class, was selected to participate in the study.

Pilot Study

A pilot study was conducted in three high schools in Illinois to determine the appropriateness of items included in the student data sheet and to determine the viability of the Occupational Survival Skills Information Test (OSSIT). The pilot study also provided an opportunity to review and revise observation and interview forms, as well as student and teacher opinionnaires, and to determine the procedural steps and time involved in administering the instruments.

Research Procedures

Two classes of Cooperative Office Occupations, Special Needs, and CETA students utilized the OSS Modules in addition to, or in place of, other curriculum materials during a period of approximately fifteen weeks. All of the sessions contained within the OSS Modules were utilized on one class of each program group. In the second class of each program group, teachers

were selective regarding which sessions were used.

Qualitative data from classroom observations and interviews with participating teachers and students were collected by the investigator throughout the fifteen week period. Opinionnaires were completed by teachers and students at the conclusion of the fifteen week period to provide both quantitative and qualitative summary data. The Occupational Survival Skills Information Test (OSSIT), designed to measure the attainment of occupational survival skills, and the Career Maturity Inventory—Attitude Scale (CMIAS) (Crites, 1973a), utilized to measure attitude toward employment, were administered to the students in all six classes at the conclusion of the fifteen week period. The OSSIT and CMIAS were also administered to three comparative classes (one from each program group) to determine any apparent differences in attainment of occupational survival skills and attitudes toward employment between students who had been exposed to the OSS Modules and students who had not been taught any of the OSS Modules. Figure 1 illustrates the different groups of students who participated in the study and their exposure to the OSS Modules.

	Instructional Method		
	A	B	C
	taught all of the sessions from the OSS Modules	taught those sessions from the OSS Modules selected by their teachers	not taught any of the OSS Modules
Program Group			
1. Cooperative Office Occupations	A_1	B_1	C_1
2. Special Needs	A_2	B_2	C_2
3. CETA	A_3	B_3	C_3

Figure 1. Participants in the study grouped by program and instructional method.

Instrumentation

The instruments used to collect data for this study regarding the effectiveness of the OSS Modules were the Career Maturity Inventory–Attitude Scale (CMIAS) (Crites, 1973a) (Appendix A) and the Occupational Survival Skills Information Test (OSSIT) (Appendix B). The OSSIT was developed as part of this study to collect biographical data and to obtain a measure of students' attainment of occupational survival skills. The OSSIT was used to collect the following biographical data for each student:

1. grade level
2. sex
3. amount of work experience
4. socioeconomic status, as measured by the occupation of the student's head of household
5. work plans
6. educational plans

Test items designed to assess the students' attainment of occupational survival skills were formulated at the knowledge, comprehension, application, and analysis levels of the cognitive domain of the Taxonomy of Educational Objectives (Bloom, 1956). Figure 2 illustrates the content design for item formation. The nine OSS Modules were used as column headings for constructing test items. The row headings are the first four levels of the cognitive domain. An excess number of items was developed at each of the four levels of cognitive learning for each of the nine OSS Modules. The developers

	Motivation for Work	Understanding Self	Interpersonal Relations	Problem Solving	Effective Communication	Coping with Conflict	Using Creativity at Work	Authority and Responsibility	Adapting and Planning for the Future
Knowledge									
Comprehension									
Application									
Analysis									

Figure 2. Content design for item formation for the OSSIT.

of the OSS Modules then selected the four items per cell (144 items) they judged to be most applicable. This procedure was used to help ensure content validity.

Prior to the pilot test of the OSSIT, the reading level of the instrument was adjusted downward to approximately the sixth grade reading level. The Dale-Chall formula for predicting readability (1948) was used to establish a reading level of the instrument.

Pilot test data were used to perform an item analysis on the OSSIT to

determine the fifty-four items to be included in the reduced version of the instrument used in the study. A matrix of student responses to each item by fifths was utilized to determine the frequency of students within each fifth who answered each alternative and who omitted the item. This information was helpful in pointing out what distractors, or incorrect alternatives, were not successful because: a) they were not plausible answers and few or no students chose the alternative, or b) too many students, especially students in the top fifths of the distribution, chose the incorrect alternative instead of the correct response. For the most part, items were selected that resulted in students in the top fifths answering the correct response more frequently than students in the lower fifths and students in the lower fifths answering the incorrect alternative more frequently than students in the top fifths. A few items that performed poorly statistically were revised and retained in the instrument because the items were considered to add to the validity of the instrument.

Kuder-Richardson Formula 21 internal consistency estimates were calculated from test data to establish reliability of the instrument. Test data were collected from the three program groups in the study separately and jointly. Results are shown in Table 1.

The Career Maturity Inventory—Attitude Scale (CMIAS) (Crites, 1973a) was used to assess students' vocational attitude maturity. The attitude scale is comprised of fifty descriptive items including the following concepts: involvement in the choice process, orientation toward work, independence in decision making, preference for career choice factors, and con-

Table 1. Internal Consistency Estimates on the Occupational Survival Skills Information Test.

Program Group	n	Internal Consistency Estimates
Cooperative Office Occupations	54	.84
Special Needs	22	.72
CETA	37	.86
All groups combined	113	.87

ceptions of the choice process. Students indicate their agreement or disagreement by answering true or false to each statement. A vocational attitude maturity score is derived for each student by totaling the number of responses made which are in agreement with those responses made by the criterion group from which the scoring key was developed.

Content validity is evidenced by the selection of items which embody all of the concepts listed above. These items and the concepts on which they were based were deduced explicitly from the central concepts in career development theory.

The CMIAS is useful in evaluating the outcomes of career education and other didactic programs and interventive experiences (Crites, 1973c). According to Crites (1973b), individuals who are mature in their attitudes also tend to be more successful on the job ($r = .19$, $p < .05$) (Cox, 1968) where the latter was a composite criterion of: 1) extent to which the job

was related to previous training, 2) job satisfaction, 3) a worker's certainty that his job was best for him, 4) job earnings, and 5) job stability. As predicted in career development theory, then, the CMIAS as a measure of one aspect of career maturity is related to the outcomes of coping with the problems of preparing for and progressing in the world of work (Crites, 1973c).

Criterion-related validity has been established by obtaining a significant correlation with the Occupational Aspiration Scale (Miller and Haller, 1964). In a group of ninth graders ($n = 79$), Bathory (1967) obtained an r of .39 ($p < .01$). Criterion-related validity has also been established by obtaining a significant correlation with the Readiness for Vocational Planning Scales (Gribbons and Lohnes). Cooter (1966) found an r of .38 ($p < .01$). Construct validity was established by finding significant relationships with variables to which, theoretically, the CMIAS should be related and finding the instrument to be unrelated to variables to which it should not be related.

Reliability of the CMIAS was established by the following means. Internal consistency estimates were calculated (Kuder-Richardson Formula 20) on item data collected from students in grades six through twelve of the standardization sample. On the average, the coefficients obtained (.74) were comparable to other instruments similar to the CMIAS (Super and Crites, 1962). The results are consistent with theoretical expectation, since the instrument was designed to measure related but not identical clusters of

career attitudes. Consequently, the internal consistency would not be expected to be as high as that of a more homogeneous measure such as a special aptitude test. The stability of the CMIAS (r = .71 for n of 1648 in grades 6 through 12) was obtained with a one year interval between pretests and posttests (Crites, 1973c).

In order to gather information concerning the opinions of teachers and students regarding the usefulness and effectiveness of the OSS Modules, two opinionnaires were developed. Teachers participating in the study were asked to complete the opinionnaire entitled Teachers' Opinions of the Occupational Survival Skills Modules (Appendix C). Students participating in the study were asked to complete the opinionnaire entitled Students' Opinions of the Occupational Survival Skills Modules (Appendix D). Both teachers and students were asked to respond to statements concerning the OSS Modules as to whether they agreed strongly, agreed, disagreed, or disagreed strongly with each statement. In addition to these fixed response items, both opinionnaires included free response items that offered both teachers and students an opportunity to express opinions that were not obtained by the fixed response items. Both opinionnaires were administered after students and teachers had completed use of the OSS Modules.

In addition to administering the opinionnaires, three days of observations were conducted at each site by the investigator. The first observation was conducted shortly after the teacher and students began using the OSS Modules. A second observation was conducted at approximately the midpoint and a third visit was made after students and teachers had completed

use of the OSS Modules. A written record of ongoing events, transactions, and informal remarks was maintained with respect to both the manifest and latent features of each classroom visit by the investigator by using the Observation Guide (Appendix E).

At the time of these observations, informal interviews with both teachers and students were conducted. A record of these interviews was maintained by using the Teacher Interview Form (Appendix F) or the Student Interview Form (Appendix G). The observations and interviews were conducted to shed additional insight on quantitative data collected during the study.

Research Questions, Hypotheses, and Methods of Analyses

At the outset of the study a number of general research questions were posed. Where specific hypotheses could be constructed, they are stated along with a brief rationale.

Question 1. To what extent do participants in the study who are members of different program groups differ in attainment of occupational survival skills?

Hypothesis 1: Program group 1, Cooperative Office Occupations students, will score significantly higher than program group 2, Special Needs students, and both program groups 1 and 2 will score significantly higher than program group 3, CETA students, on the OSSIT.

Question 2. To what extent do students participating in the study who have been taught the OSS Modules differ in attainment of occupational survival skills from students who have not been taught the OSS Modules?

Question 3. When teachers are given a choice of which sessions from the OSS Modules to select for use in their classes, to what extent do students participating in the study who have been taught selected sessions differ in attainment of occupational survival skills from students who have been taught all of the sessions within the OSS Modules?

Hypothesis 2: Group A, students who have been taught all of the sessions from the OSS Modules, will score significantly higher than group B, students who have been taught those sessions from the OSS Modules selected by their teachers, and both groups A and B will score significantly higher than group C, students who have not been taught any of the OSS Modules, on the OSSIT.

The Occupational Survival Skills Information Test (OSSIT) measures students' attainment of occupational survival skills as they are taught from the OSS Modules. The prediction was made that students' scores would be higher as a result of increased exposure to the OSS Modules.

Question 4. To what extent do students participating in the study, who are members of different programs groups, differ in their attitudes toward employment?

Hypothesis 3: Program group 1, Cooperative Office Occupations students, will score significantly higher than program group 2, Special Needs students, and both groups 1 and 2 will score significantly higher than program group 3, CETA students, on the CMIAS.

Question 5. What are the differences in attitudes toward employment among students participating in the study who have been taught the OSS Modules and students who have not been taught the OSS Modules?

Question 6. When teachers are given a choice of which sessions from the OSS Modules to select for use in their classes, what are the differences in attitudes toward employment among students participating in the study who have been taught selected sessions from the OSS Modules and students who have been taught all of the sessions within the OSS Modules?

Hypothesis 4: Group A, students who have been taught all of the sessions from the OSS Modules, will score significantly higher than group B, students who have been taught those sessions from the OSS Modules selected by their teachers, and both groups A and B will score significantly higher than group C, students who have not been taught any of the OSS Modules, on the CMIAS.

The prediction was made that students' attitudes toward employment, as measured by scores on the CMIAS, would be more mature as a result of increased exposure to the OSS Modules.

Question 7. When students participating in the study who have been taught the OSS Modules are compared with other students who have not been taught the OSS Modules, which of the three program groups will show the greatest and least difference in attainment of occupational survival skills?

Hypothesis 5: The difference in scores between students who have been taught any or all of the OSS Modules and students who have not been taught any of the OSS Modules will be significantly greater for the CETA program group than that for the Special Needs program group, and both differences will be significantly greater than that for the Cooperative Office Occupations program group on the OSSIT.

The prediction that the greatest difference in attainment of occupational survival skills, as measured by scores on the OSSIT, would exist between the CETA students who have been taught the OSS Modules and the CETA students who have not been taught the OSS Modules was based on the fact that these CETA students have dropped out of high school for one reason or another. These students tended to be older than either the Special Needs or Cooperative Office Occupations students who participated in the study. The CETA students were enrolled in the program to earn a high school diploma, to develop employable skills, and to secure full-time employment following graduation. After reviewing the OSS Modules, the CETA teachers were impressed with the apparent relevance of the materials to the students' needs and were of the opinion that the students would be motivated to learn occupational survival skills.

The prediction that the least difference in attainment of occupational survival skills, as measured by scores on the OSSIT, would exist between the Cooperative Office Occupations students who have been taught the OSS Modules and the Cooperative Office Occupations students who have not been taught the

OSS Modules was based on the assumption that Cooperative Office Occupations students have experienced the most academic success of the three program groups. This assumption was based on information collected through discussions with teachers from the three program groups and observations conducted during field testing of the OSS Modules. Much of the information included in the OSS Modules was not new to these students. Office Occupations teachers who field tested the early versions of the materials reported that about half of the topics and concepts included in the Modules seemed to be common sense to their students.

The prediction that the difference in attainment of occupational survival skills, as measured by scores on the OSSIT, between the Special Needs students who have been taught the OSS Modules and the Special Needs students who have not been taught the OSS Modules would be greater than the difference between the Cooperative Office Occupations students but less than the difference between the CETA students was based on the diverse nature of the students in the Special Needs program group. The majority of the students in the Special Needs classes were designated as minimally mentally impaired (MMI). Other students possessed learning disabilities of various types. Although a wide range of scores was expected, the Special Needs students, as a group, were expected to show a smaller difference than the CETA students but a greater difference than the Cooperative Office Occupations students.

Question 8. When students participating in the study who have been taught the OSS Modules are compared with other students from the same type of program who have not been taught the OSS Modules,

which of the three program groups will show the greatest and least difference in attitudes toward employment?

Hypothesis 6: The difference in scores between students who have been taught any or all of the OSS Modules and students who have not been taught any of the OSS Modules will be significantly greater for the CETA program group than that for the Special Needs program group, and both differences will be significantly greater than that for the Cooperative Office Occupations program group on the CMIAS.

The prediction that teaching the OSS Modules would have the greatest effect on the attitudes toward employment of the CETA students and the least effect on the Cooperative Office Occupations students was based on the same rationale as that following hypothesis 5.

Hypotheses 1, 2, and 5 were tested by performing multiple classification analyses of variance for performance on the OSSIT of students classified according to instructional method and type of program group. Hypotheses 3, 4, and 6 were tested by performing multiple classification analyses of variance for performance on the CMIAS of students classified according to instructional method and type of program group.

Question 9. What are the relationships between students' attainment of occupational survival skills and their attitudes toward employment?

Hypothesis 7: There will be a significant positive correlation between students' attainment of occupational survival skills, as measured by scores on the OSSIT, and their attitudes toward employment, as measured by scores on the CMIAS.

The prediction that students' attitudes toward employment would correlate positively with their attainment of occupational survival skills was based on the fact that the cognitive component of individuals' attitudes can be partially changed and/or developed in many cases by presenting the individuals with new information. The interactions of students and teachers encouraged by teaching the OSS Modules may also have influenced the affective component of the individuals' attitudes toward employment.

Hypothesis 7 was tested by employing the Pearson product-moment correlation to determine the statistical relationship between students' scores on the OSSIT and their scores on the CMIAS.

Question 10. To what extent are the attainment of occupational survival skills and attitudes toward employment related to differences in students' grade level, sex, amount of work experience, socioeconomic status, work plans, and educational plans?

Hypothesis 8: The variables of grade level, sex, amount of work experience, socioeconomic status, work plans, and educational plans bear a significant relationship to students' scores on the OSSIT.

Hypothesis 9: The variables of grade level, sex, amount of work experience, socioeconomic status, work plans, and educational plans bear a significant relationship to students' scores on the CMIAS.

The prediction that the variables of grade level, sex, amount of work experience, socioeconomic status, work plans, and educational plans would bear a significant relationship to students' attainment of occupational survival skills and to their attitudes toward employment was made for the following reasons. Students who are in a higher grade level were expected to score higher on the CMIAS since maturity is a function of age. Both attainment of occupational survival skills and development of mature attitudes toward employment were expected to increase as a result of previous work experience and established work plans. The relevance of work related curriculum materials was thought to be more apparent to students who could relate the materials to previous work experience and/or envision their usefulness in helping them to become successful at work in the near future. Although no predictions were made regarding the relationships between student performance and the variables of sex, socioeconomic status, and educational plans, relationships were thought to exist.

Hypotheses 8 and 9 were examined first using descriptive summary test statistics. Mean scores and standard deviations for both the OSSIT and the CMIAS for students grouped by grade level, sex, amount of work experience, socioeconomic status, work plans, and educational plans were com-

puted in an attempt to identify any apparent relationships. Hypotheses 8 and 9 were tested by performing a series of analyses of variance for performance on the OSSIT and the CMIAS for students grouped by each of the variables listed above.

Question 11. What aspects of the OSS Modules are most and least useful and effective for the three program groups participating in the study as judged by students and teachers?

Question 12. What aspects of the OSS Modules were most and least attractive to the three groups participating in the study as judged by students and teachers?

Although hypotheses were not constructed to answer these questions, information was collected from both students and teachers by means of opinionnaires, interviews, and observations. The fixed response items included in the student opinionnaire were analyzed by determining the mean response and standard deviation for each item by program group and for all students. Individual teacher responses and the mean response by all teachers for fixed response items included in the teacher opinionnaire were also recorded. Information collected from the free response items on both opinionnaires, interviews with participating students and teachers, and observations conducted were used to shed additional insight on the data collected through the fixed response items on the opinionnaires.

This chapter has identified techniques utilized in this study to determine the effectiveness and usefulness of the OSS Modules for three different student populations. Chapter IV presents responses to the research questions and results of hypotheses testing.

CHAPTER IV

Presentation and Analysis of Data

The data presented in this chapter are concerned with a description of the participants in this study and with responding to the research questions and testing the hypotheses stated in Chapter III. Variables taken into account in this study were program group membership, instructional method utilized, students' grade level, sex, amount of work experience, socioeconomic status, work plans, and educational plans. Qualitative data collected throughout the study are also presented to supplement and further explain the quantitative results presented.

Description of Participants

As described earlier, the participants were selected for three program groups: Cooperative Office Occupations, Special Needs, and CETA. Students from each program group were exposed to varying amounts of the OSS Modules identified as one of the following instructional methods: taught all of the OSS Modules, taught only those sessions from the OSS Modules selected by their teachers, and not taught any of the OSS Modules. The dispersion of participants in these groups is shown in Table 2.

The subjects selected for this study were eleventh and twelfth grade students. Table 3 reports the number and percentage of students in each grade level.

Among the eleventh grade students, 9 were enrolled in the Special Needs program and 3 in the Cooperative Office Occupations program. Students were

Table 2. Number and Percentage of Students Participating in the Study by Program Group and Instructional Method.

Program Group	Instructional Method						Total Program Group	
	taught all of the OSS Modules		taught only those sessions from the OSS Modules selected by their teachers		not taught any of the OSS Modules			
	n	%	n	%	n	%	n	%
1. Cooperative Office Occupations	18	15.93	19	16.81	17	15.04	54	47.79
2. Special Needs	10	08.85	6	05.31	6	05.31	22	19.47
3. CETA	12	10.62	10	08.85	15	13.27	27	32.74
Total Instructional Methods	40	35.40	35	30.97	38	33.63	113	100.00

Table 3. Number and Percentage of Students in Each Grade Level.

Grade	Number	Percentage
Eleven	12	10.62
Twelve	101	89.38
Total	113	100.00

selected as intact classroom groups for each program type and therefore, could neither be selected on the basis of grade level nor on the basis of sex, which is reported in Table 4.

Table 4. Number and Percentage of Students by Sex.

Sex	Number	Percentage
Male	31	27.43
Female	82	72.57
Total	113	100.00

One male and 53 female participants were enrolled in the Cooperative Office Occupations program. Fifteen males and seven females were enrolled in the Special Needs program, and 15 males and 22 females were members of the CETA program group.

Students participating in the study were asked to indicate their amount of work experience as never been employed, employed part-time only, employed full-time for more than a summer, or employed full-time in the summer but part-time during the school year. Table 5 contains a report of their responses.

An analysis of these data reveals that almost all of the students have had some amount of work experience. Of those students who reported having had work experience, half of the students have worked part-time only. This group includes 26 Cooperative Office Occupations, 13 Special Needs and 15

Table 5. Number and Percentage of Students by Amount of Work Experience.

Work Experience	Number	Percentage
Never been employed	5	04.42
Employed part-time only	54	47.80
Employed full-time for more than a summer	27	23.89
Employed full-time in the summer but part-time during the school year	27	23.89
Total	113	100.00

CETA students. One-fourth of the students reporting work experience have been employed full-time for more than a summer. This group includes six Cooperative Office Occupations, one Special Needs, and 20 CETA students. The remaining one-fourth of students who reported work experience have been employed full-time in the summer but part-time during the school. This group includes 22 Cooperative Office Occupations and five Special Needs students. Those students who reported having never been employed included three Special Needs students and two CETA students.

Participants were also asked to indicate the occupation of the head of their household by first listing the occupation in their own words and then identifying the category in which the occupation can best be classified. This procedure helped to ensure correct classification of occupations indicated by the students. Table 6 shows the socioeconomic status of the students as measured by the occupations of the students' heads of households. The ranking of occupations by socioeconomic level conforms to the

Table 6. Number and Percentage of Students from Socioeconomic Levels as Measured by Occupation of Head of Household.

Socioeconomic Level	Occupation	Number	Percentage
1	Professional or Technical Worker	11	09.73
2	Manager	16	14.16
3	Sales Worker	9	07.96
4	Clerical Worker	7	06.19
5	Craftsman or Foreman	15	13.27
6	Semi-skilled Worker	18	15.93
7	Service Worker	13	11.50
8	Laborer or Unskilled Worker	17	15.04
	No Response	7	06.19
	Total	113	100.00

socioeconomic status of occupations reported by the Duncan (1961) Socio-economic Index.

Among the Cooperative Office Occupations Students who responded, heads of households included eight professional or technical workers, ten managers, six sales workers, three clerical workers, nine service workers, nine craftsmen or foremen, seven seim-skilled workers, and two laborers or unskilled workers. The Special Needs students who responded indicated heads of households as one professional or technical worker, five managers, one sales worker, two clerical workers, two craftsmen or foremen, three semi-skilled workers, and five laborers or unskilled workers. Indicated as heads of house-

holds by the CETA students responding were two professional or technical workers, one manager, two sales workers, two clerical workers, four service workers, four craftsmen or foremen, eight semi-skilled workers and ten laborers or unskilled workers.

In addition to work experience, students participating in the study were asked to indicate their work plans after leaving high school as either not planning to work for pay, planning to work at any job available, planning to work at a job for which trained, or planning to work at a job that is different from that for which trained. Table 7 reports the students' work plans after leaving high school.

Table 7. Number and Percentage of Students by Work Plans.

Work Plans	Number	Percentage
Do not plan to work for pay	3	02.65
Plan to work at any job available	17	15.04
Plan to work at a job for which trained	76	67.26
Plan to work at a job that is different from that for which trained	12	10.62
No Response	5	04.42
Total	113	100.00

More than two-thirds of the students indicated that they plan to work at a job for which they have been trained (40 Cooperative Office Occupations, eight Special Needs and 28 CETA). Fifteen percent of the students claimed they plan to work at any job available (five Cooperative Office Occupations, ten Special Needs and two CETA), and approximately 10% of the students indicated that they plan to work at a job different from that for which trained (five Cooperative Office Occupations, three Special Needs and four CETA). Less than 1% of the students indicated that they do not plan to work for pay (one Cooperative Office Occupations and two CETA). In this study, the variable of sex had no influence on the participants' plans to work for pay.

In addition to indicating their work plans, the students were asked to indicate their educational plans after leaving high school as either no plans for further education, plans to attend a community college or technical school for one or two years, plans to attend a four year college or university, plans to join the military for training, or other plans. The participants' educational plans after leaving high school are shown in Table 8.

Approximately two-thirds of the students (65%) plan to continue their formal education at a community college, technical school, or four year college or university. Almost half of the participants have plans to attend a community college or technical school for one or two years. This group includes 31 Cooperative Office Occupations, two Special Needs and 22 CETA students. Approximately 16% plan to attend a four year college or

Table 8. Number and Percentage of Students by Educational Plans.

Educational Plans	Number	Percentage
No plans for further education	29	25.66
Plan to attend a community college or technical school for one or two years	55	48.67
Plan to attend a four year college or university	18	15.93
Plan to join the military for training	6	05.31
Other plans	3	02.65
No Response	2	01.77
Total	113	100.00

university, including 11 Cooperative Office Occupations, four Special Needs, and three CETA students. Only 8% of the students indicated non-traditional plans for further education such as joining the military for training or other plans. This group includes one Cooperative Office Occupations, six Special Needs, and two CETA students. Approximately one-fourth of the students indicated no plans for further education. This group includes 11 Cooperative Office Occupations, nine Special Needs, and nine CETA students.

Responses to Research Questions and Results of Hypotheses Testing

At the conclusion of the fifteen week instructional period, the Occupational Survival Skills Information Test (OSSIT) and the Career Maturity Inventory—Attitude Scale (CMIAS) (Crites, 1973a) were administered to the

students. Data from these instruments were analyzed to obtain a comparison of the three program groups, taking into account instructional method utilized, students' grade level, sex, amount of work experience, socioeconomic status, work plans, and educational plans.

Question 1. To what extent do students participating in the study who are members of different program groups differ in attainment of occupational survival skills?

Mean scores and standard deviations on the OSSIT for each program group are presented in Table 9. The mean score obtained by CETA students was 7.58

Table 9. Mean Score and Standard Deviation on OSSIT by Program Group.

Program Group	n	%	$\bar{X}$	S
Cooperative Office Occupations	54	47.79	23.93	8.75
Special Needs	22	19.47	18.91	6.52
CETA	37	32.74	31.51	9.34
Total	113	100.00	25.43	9.69

points greater than the mean score obtained by Cooperative Office Occupations students and 12.60 points greater than the mean score obtained by Special Needs students. The standard deviation reported for CETA students was greater than that reported for Cooperative Office Occupations students and both standard deviations were greater than that reported for Special Needs students.

Hypothesis 1: Program group 1, Cooperative Office Occupations students, will score significantly higher than program group 2, Special Needs students, and both program groups 1 and 2 will score significantly higher than program group 3, CETA students, on the OSSIT.

Results of a two-way analysis of variance for scores on the OSSIT by instructional method and program group are presented in Table 10.

Table 10. Analysis of Variance Summary Table for Scores on the OSSIT by Instructional Method and Program Group.

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio
A (instructional method)	2	344.837	172.419	2.478
B (program group)	2	2599.925	1299.962	18.684**
AxB (interaction)	4	508.116	127.029	1.826
Residual	104	7235.812	69.575	

**significant at the < .01 level of probability

The F value for the main effect of program group is statistically signi- at the < .01 level of probability.

To compare the means of the three program groups following a significant F ratio, the Duncan (1955) technique was used. It was found that the CETA program group with a mean of 31.51 and a standard deviation of 9.34 scored significantly higher ($p < .05$) than the Cooperative Office Occupations

program group with a mean of 23.93 and a standard deviation of 8.84 and both program groups scored significantly higher ($p < .05$) than the Special Needs program group with a mean of 18.91 and a standard deviation of 6.52.

Hypothesis 1 was therefore rejected. Although significant differences in mean scores were obtained for each program group, the prediction was made that the order of performance by program groups (ranking of mean scores from highest to lowest) would be Cooperative Office Occupations, Special Needs and CETA. The obtained order of performance was CETA, Cooperative Office Occupations, and Special Needs.

Question 2. To what extent do students participating in the study who have been taught the OSS Modules differ in attainment of occupational survival skills from students who have not been taught the OSS Modules?

Mean scores and standard deviations on the OSSIT for each instructional method are presented in Table 11. The mean socre obtained by students who were taught all of the OSS Modules was 2.96 points greater than the mean score obtained by students who were not taught any of the OSS Modules. The mean score obtained by students who were taught only those sessions from the OSS Modules selected by their teachers was 1.76 points greater than that obtained by students who were not taught any of the OSS Modules. The standard deviation reported for students who were not taught any of the OSS Modules was less than that reported for students who were taught all of

Table 11. Mean Score and Standard Deviation on OSSIT by Instructional Method.

Instructional Method	n	%	$\bar{X}$	S
Taught all of the sessions from the OSS Modules	40	35.40	26.80	10.48
Taught those sessions from the OSS Modules selected by their teachers	35	30.97	25.60	8.95
Not taught any of the OSS Modules	38	33.63	23.84	9.49
Total	113	100.00	25.43	9.69

the OSS Modules but greater than that reported for students who were taught only those sessions from the OSS Modules selected by their teachers.

Question 3. When teachers are given a choice of which sessions from the OSS Modules to select for use in their classes, to what extent do students participating in the study who have been taught selected sessions differ in attainment of occupational survival skills from students who have been taught all of the sessions within the OSS Modules?

Mean scores and standard deviations on the OSSIT for students who were taught all of the OSS Modules and for students taught only those sessions from the OSS Modules selected by their teachers are presented in Table 11. The mean score obtained by students who were taught all of the OSS Modules (26.80 with a standard deviation of 10.48) was 1.20 points greater than the mean score obtained by students who were taught only those sessions from

the OSS Modules selected by their teachers (25.60 with a standard deviation of 8.95).

Hypothesis 2: Group A, students who have been taught all of the sessions from the OSS Modules, will score significantly higher than group B, students who have been taught those sessions from the OSS Modules selected by their teachers, and both groups A and B will score significantly higher than group C, students who have not been taught any of the OSS Modules, on the OSSIT.

Results of a two-way analysis of variance for scores on the OSSIT by instructional method and program group are presented in Table 10. The main effect of instructional method was not significant ($F = 2.478$; $df = 2,104$). In addition, there was no significant interaction ($F = 1.826$; $df = 4,104$) between the main effects of program group membership and instructional method. Although differences in mean raw scores by instructional method were obtained, and these differences were obtained in the predicted order, hypothesis 2 was rejected since the differences were not statistically significant. It cannot be inferred that instructional method has an effect on performance on the OSSIT. However, when instructional method is classified by whether or not exposed to the OSS Modules (grouping together those students who were taught any or all of the OSS Modules) the instructional method is statistically significant ($p < .05$). Tables 15 and 16 present these results.

Question 4. To what extent do students participating in the study who are members of different program groups differ in their attitudes toward employment?

Mean scores and standard deviations on the CMIAS for each program group are presented in Table 12. The mean score obtained by Cooperative Office Occupations students was 00.68 of a point greater than the mean score obtained by the CETA students and 12.43 points greater than the mean score obtained by Special Needs students. The standard deviation reported for Special Needs students was greater than that reported for Cooperative Office Occupations students and both standard deviations were greater than that reported for CETA students.

Table 12. Mean Score and Standard Deviation on CMIAS by Program Group.

Program Group	n	%	$\bar{X}$	S
Cooperative Office Occupations	54	47.79	36.52	5.17
Special Needs	22	19.47	24.09	5.50
CETA	37	32.74	35.84	4.69
Total	113	100.00	33.88	6.99

Hypothesis 3: Program group 1, Cooperative Office Occupations students, will score significantly higher than program group 2, Special Needs students, and both program groups 1 and 2 will score significantly higher than program group 3, CETA students, on the CMIAS.

Results of a two-way analysis of variance for scores on the CMIAS by instructional method and program group are presented in Table 13.

Table 13. Analysis of Variance Summary Table for Scores on the CMIAS by Instructional Method and Program Group.

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F Ratio
A (instructional method)	2	1.019	.510	.019
B (program group)	2	2602.388	1301.194	49.634**
AxB (interaction)	4	116.892	29.223	1.115
Residual	104	2726.415	26.216	

**significant at the < .01 level of probability

The F value for the main effect of program group is statistically significant at the < .01 level of probability.

To compare the means of the three program groups following a significant F ratio, the Duncan (1955) technique was used. It was found that the Special Needs program group with a mean of 24.09 and a standard deviation of 5.50 scored significantly lower ($p < .05$) than both the CETA program group with a mean of 35.84 and a standard deviation of 4.69 and the Cooperative Office Occupations program group with a mean of 36.52 and a standard deviation of 5.17. The difference between mean scores for CETA and Cooperative Office Occupations program groups was not significant.

Hypothesis 3 was, therefore, rejected. Although a small difference in raw score means was obtained between the Cooperative Office Occupations program group and the CETA program group, the only statistically significant difference obtained was between the Special Needs program group and the Cooperative Office Occupations and the CETA program groups. Additionally, hypothesis 3 predicted that the Special Needs program group would score significantly higher than the CETA program group. In fact, the CETA program group scored significantly higher than the Special Needs program group.

Question 5. What are the differences in attitudes toward employment among students participating in the study who have been taught the OSS Modules and students who have not been taught the OSS Modules?

Mean scores and standard deviations on the CMIAS for each instructional method are presented in Table 14.

Table 14. Mean Score and Standard Deviation on CMIAS by Instructional Method.

Instructional Method	n	%	$\bar{X}$	S
Taught all of the sessions from the OSS Modules	40	35.40	33.25	8.07
Taught those sessions from the OSS Modules selected by their teachers	35	30.97	34.29	5.81
Not taught any of the OSS Modules	38	33.63	34.16	6.89
Total	113	100.00	33.88	6.99

The mean score obtained by students who were taught all of the OSS Modules was 00.91 of a point less than that obtained by students who were not taught any of the OSS Modules. The mean score obtained by students who were taught only those sessions from the OSS Modules selected by their teachers was 00.13 of a point greater than that obtained by students who were not taught any of the OSS Modules. The standard deviation reported for students who were not taught any of the OSS Modules was less than that reported for students taught all of the OSS Modules but greater than that reported for students taught only those sessions from the OSS Modules selected by their teachers.

Question 6. When teachers are given a choice of which sessions from the OSS Modules to select for use in their classes, what are the differences in attitudes toward employment among students participating in the study who have been taught selected sessions from the OSS Modules and students who have been taught all of the sessions within the OSS Modules?

The scores and standard deviations on the CMIAS for students who were taught all of the OSS Modules and for students who were taught only those sessions from the OSS Modules selected by their teachers are presented in Table 14. The mean score obtained by students who were taught only those sessions from the OSS Modules selected by their teachers (34.29 with a standard deviation of 5.81) was 1.04 points greater than that obtained by students who were taught all of the OSS Modules (33.25 with a standard deviation of 8.07).

Hypothesis 4: Group A, students who have been taught all of the sessions from the OSS Modules will score significantly higher than group B, students who have been taught only those sessions from the OSS Modules selected by their teachers, and both groups A and B, will score significantly higher than group C, students who have not been taught any of the OSS Modules, on the CMIAS.

Results of a two-way analysis of variance for scores on the CMIAS by instructional method and program group are presented in Table 13. The main effect of instructional method was not significant. In addition, there was no significant interaction between the main effects of program group membership and instructional method. Hypothesis 4 was rejected since no significant differences were obtained between mean scores by instructional method. Additionally, hypothesis 4 predicted that students who were taught all of the sessions from the OSS Modules would score higher than the groups who were taught only those sessions from the OSS Modules selected by their teachers and those who were not taught any of the OSS Modules. In fact, the differences between mean raw scores by instructional method showed students who were taught only those sessions from the OSS Modules selected by their teachers scored slightly higher than those students who were not taught any of the OSS Modules, and both groups scored higher than those students who were taught all of the OSS Modules.

Question 7. When students participating in the study who have been taught the OSS Modules are compared with other students who have not been taught the OSS Modules, which of the three program groups will show the greatest and least difference in attainment of occupational survival skills?

Table 15 presents a comparison of the mean scores on the OSSIT for students participating in the study by program group and exposure to the OSS Modules.

Table 15. Comparison of Mean Scores on the OSSIT for Students by Program Group and Exposure to the OSS Modules.

Program Group	Exposure to OSS Modules	
	taught all or any of the OSS Modules	not taught any of the OSS Modules
Cooperative Office Occupations	25.84	19.76
Special Needs	19.69	16.83
CETA	31.68	31.27
Total Program Groups	26.24	23.84

When mean scores on the OSSIT for all students participating in the study are compared, those students who were taught any or all of the OSS Modules obtained a mean score of 2.40 points greater than those students who were not taught any of the OSS Modules. Additionally, higher mean scores were obtained for those students who were taught any or all of the

OSS Modules in each program group. The greatest difference (6.08 points) occurred within the Cooperative Office Occupations program group. A difference of 2.86 points occurred within the Special Needs program group, but a difference of only 00.41 of a point occurred within the CETA program group.

Hypothesis 5: The difference in scores between students who have been taught any or all of the OSS Modules and students who have not been taught any of the OSS Modules will be significantly greater for the CETA program group than that for the Special Needs program group, and both differences will be significantly greater than that for the Cooperative Office Occupations program group on the OSSIT.

Table 16 presents results of a two-way analysis of variance for scores on the OSSIT by program group and exposure to the OSS Modules.

Table 16. Analysis of Variance Summary Table for Scores on the OSSIT by Program Group and Exposure to the OSS Modules.

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F Ratio
A (program group)	2	2584.857	1292.429	18.143**
B (exposure)	1	302.890	302.890	4.252*
AxB (interaction)	2	163.812	81.906	1.150
Residual	107	7622.063	71.234	

**significant at the < .01 level of probability
*significant at the < .05 level of probability

Although the interaction effect of program group and exposure to the OSS Modules is not significant, the main effect of exposure (whether students are taught any or all of the OSS Modules or not taught any of the OSS Modules) is significant ($p < .05$). The main effect of program group is also significant ($p < .01$). However, hypothesis 5 predicted that the least difference would occur among the Cooperative Office Occupations students and the greatest difference among the CETA students. In fact, the reverse occurred. The least difference occurred among the CETA students and the greatest difference occurred among the Cooperative Office Occupations students. It can be inferred that both exposure to the OSS Modules and membership in a particular program group affect student performance on the OSSIT. However, it cannot be inferred that the greatest difference between students exposed to the OSS Modules and those not exposed will occur among CETA students and that the least difference will occur among Cooperative Office Occupations students. Therefore, hypothesis 5 must be rejected.

Question 8: When students participating in the study who have been taught the OSS Modules are compared with other students who have not been taught the OSS Modules, which of the three program groups will show the greatest and least difference in attitudes toward employment?

Table 17 presents a comparison of the mean scores on the CMIAS for students participating in the study by program group and exposure to the OSS Modules.

Table 17. Comparison of Mean Scores on the CMIAS for Students by Program Group and Exposure to the OSS Modules.

Program Group	Exposure to OSS Modules	
	taught all or any of the OSS Modules	not taught any of the OSS Modules
Cooperative Office Occupations	36.38	36.82
Special Needs	24.56	22.83
CETA	33.75	35.67
Total Program Groups	33.73	34.16

The mean score obtained on the CMIAS by all students participating in the study who were taught any or all of the OSS Modules was slightly lower (00.38) than that obtained by students who were not taught any of the OSS Modules. The greatest differences among the program groups were obtained by the Special Needs program group and the CETA program group. The Special Needs students who were exposed to the OSS Modules scored 1.73 points higher than those not taught any of the OSS Modules. However, the CETA students who were not taught any of the OSS Modules scored 1.92 points higher than those exposed to the OSS Modules.

Hypothesis 6: The differences in scores between students who have been taught any or all of the OSS Modules and students who have not been taught any of the OSS Modules will be significantly greater for the CETA program group than that for the Special Needs program group, and both differences will be significantly greater than that for the Cooperative Office Occupations program group on the CMIAS.

Table 18 presents the results of a two-way analysis of variance for scores on the CMIAS by program group and exposure to the OSS Modules.

Table 18. Analysis of Variance Summary Table for Scores on the CMIAS by Program Group and Exposure to the OSS Modules.

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F Ratio
A (program group)	2	2622.367	1311.183	49.606**
B (exposure)	1	.974	.974	.037
AxB (interaction)	2	15.121	7.560	.752
Residual	107	2828.252	26.432	

**significant at the < .01 level of probability

Although the main effect of program group is significant ($p < .01$), neither the main effect of exposure (whether students are taught any or all of the OSS Modules or not taught any of the OSS Modules) nor the interaction effect of program group and exposure are significant. Therefore, hypothesis 6 must be rejected. It cannot be inferred that whether or not students are taught the OSS Modules has an effect on their scores on the CMIAS. There are no statistically significant differences by exposure to the OSS Modules among any of the program groups.

Question 9. What are the relationships between students' attainment of occupational survival skills and their attitudes toward employment?

Table 19 presents students' mean scores on the OSSIT and on the CMIAS by program group and instructional method.

The Special Needs program group obtained the lowest mean scores on both the OSSIT and the CMIAS. Although the CETA program group obtained a mean score on the OSSIT that was 7.58 points higher than that obtained by the Cooperative Office Occupations program group, the difference in mean scores obtained on the CMIAS was only 00.68, with the Cooperative Office Occupations program group scoring higher. The highest mean score of any group participating in the study on the CMIAS (36.82) was obtained by Cooperative Office Occupations students who obtained a mean score on the OSSIT of 19.76 which was only approximately one point higher than the mean score obtained by all Special Needs students. However, the two lowest mean scores by any groups participating in the study on the CMIAS (approximately 22.80) were obtained by Special Needs students who also obtained the two lowest mean scores on the OSSIT.

Hypothesis 7: There will be a significant positive correlation between students' attainment of occupational survival skills, as measured by scores on the OSSIT, and their attitudes toward employment, as measured by the scores on the CMIAS.

An analysis of the relationship between scores obtained on the OSSIT and on the CMIAS by all students participating in the study resulted in a

Table 19. Mean Scores on OSSIT and CMIAS by Program Group and Instructional Method.

Program Group	Instructional Method							
	taught all the OSS Modules		taught only those sessions from the OSS Modules selected by their teachers		not taught any of the OSS Modules		Total Program Group	
	OSSIT	CMIAS	OSSIT	CMIAS	OSSIT	CMIAS	OSSIT	CMIAS
Cooperative Office Occupations	25.17	36.78	26.47	36.00	19.76	36.82	23.93	36.52
Special Needs	19.40	22.80	20.17	27.50	16.83	22.83	18.91	24.09
CETA	35.42	36.67	27.20	35.10	31.27	35.67	31.51	35.84
Total Instructional Method	26.80	33.25	25.60	34.20	23.84	34.16		
Grand Mean OSSIT	25.43							
Grand Mean CMIAS	33.88							

correlation coefficient of .506 ($p < .01$). Table 20 presents the correlation coefficients obtained between the scores on the OSSIT and the CMIAS by program group and instructional method.

Table 20. Correlation Coefficients for Scores on the OSSIT and CMIAS by Program Group and Instructional Method.

Program Group	r**
Cooperative Office Occupations	.335
Special Needs	.617
CETA	.595
Instructional Method	
Taught all of the OSS Modules	.632
Taught only those sessions from the OSS Modules selected by their teachers	.478
Not taught any of the OSS Modules	.395
For all participants in the study	.506

**significant at $p < .01$ level of probability

Positive correlation coefficients were also obtained for scores when grouped by program group and by instructional method ($p < .01$). The lowest obtained correlation coefficient was .335 for students in the Cooperative Office Occupations program group. The highest obtained correlation coefficient was .632 for students who were taught all of the OSS Modules. Therefore, hypothesis 7 cannot be rejected. It can be inferred that there is a

relationship between the two variables of scores on the OSSIT and scores on the CMIAS.

Question 10. To what extent are the attainment of occupational survival skills and attitudes toward employment related to the differences in students' grade level, sex, amount of work experience, socioeconomic status, work plans, and educational plans?

Table 21 presents mean scores and standard deviations on the OSSIT and CMIAS for students by grade level.

Table 21. Mean Score and Standard Deviation on OSSIT and CMIAS by Grade Level.

Grade	n	%	OSSIT $\bar{X}$	OSSIT S	CMIAS $\bar{X}$	CMIAS S
11	12	10.62	20.33	7.57	29.25	5.31
12	101	89.38	26.04	9.77	34.43	6.98
Total	113	100.00	25.43	9.69	33.88	6.99

Approximately 11% of the students participating in the study were in the eleventh grade. These students scored 5.71 points lower on the OSSIT than the students in the twelfth grade and 5.18 points lower on the CMIAS.

Mean scores and standard deviations on the OSSIT and CMIAS for students by sex are presented in Table 22.

Table 22. Mean Score and Standard Deviation on OSSIT and CMIAS by Sex.

Sex	n	%	OSSIT $\bar{X}$	OSSIT S	CMIAS $\bar{X}$	CMIAS S
male	31	27.43	23.52	8.57	29.16	6.58
female	82	72.57	26.16	10.03	35.66	6.31
Total	113	100.00	25.43	9.69	33.88	6.99

Approximately 73% of the students participating in the study were female. The mean score obtained by females on the OSSIT was 2.64 points higher than that for males. Females obtained a mean score on the CMIAS that was 6.50 points higher than that for males.

Table 23 shows mean scores and standard deviations on the OSSIT and CMIAS for students by amount of work experience.

Table 23. Mean Score and Standard Deviation on OSSIT and CMIAS by Work Experience.

Work Experience	n	%	OSSIT $\bar{X}$	OSSIT S	CMIAS $\bar{X}$	CMIAS S
never been employed	4	03.54	21.75	11.44	27.25	8.66
employed part-time only	54	47.79	23.85	8.57	33.19	7.29
employed part-time during the school year but full-time during the summer	27	23.89	22.26	8.64	33.96	6.93
employed full-time for more than a summer	27	23.89	32.63	9.52	36.04	5.69
no response	1	00.88	--	--	--	--
Total	113	100.00	25.43	9.69	33.88	6.99

Only four students participating in the study had never been employed. These students obtained the lowest mean scores on both the OSSIT and the CMIAS. Approximately 72% of the students responding indicated that they had been employed part-time only or part-time during the school year but full-time during the summer. The differences in mean scores obtained on the OSSIT (1.59) and on the CMIAS (00.77) for these students were very small. However, mean scores obtained by those students indicating that they have been employed full-time for more than a summer were considerably higher than those obtained by any other group. These students obtained a mean score on the OSSIT that was 8.78 points higher than any other group and a mean score on the CMIAS that was 2.08 points higher than any other group.

Table 24 presents means and standard deviations on the OSSIT and the CMIAS by socioeconomic status.

In this study, only slight differences in mean scores were obtained on both the OSSIT and the CMIAS between students grouped by socioeconomic status as measured by occupation of head of household. Those students whose heads of households are semi-skilled workers obtained the highest mean score on the OSSIT (28.44). The lowest mean score on the OSSIT (22.41) was obtained by those students whose heads of households are sales workers. The highest mean score on the CMIAS (36.43) was obtained by students whose heads of households are clerical workers. Those students whose heads of households are laborers or unskilled workers obtained the lowest mean score (31.88) on the CMIAS.

Table 24. Mean Score and Standard Deviation on OSSIT and CMIAS by Socioeconomic Status as Measured by Occupation of Head of Household.

Socioeconomic Status (Occupation of Head of Household)	n	%	OSSIT $\bar{X}$	OSSIT S	CMIAS $\bar{X}$	CMIAS S
professional or technical worker	11	09.73	24.73	10.44	35.45	5.87
manager	16	14.16	24.00	8.59	33.38	7.92
sales worker	9	07.96	22.44	6.82	34.22	6.12
clerical worker	7	06.19	26.57	9.62	36.43	8.28
craftsman or foreman	15	13.29	24.60	11.17	35.40	6.64
semi-skilled worker	18	15.93	28.44	13.05	33.17	8.39
service worker	13	11.50	25.46	4.70	35.00	5.20
laborer or unskilled worker	17	15.04	26.94	10.00	31.88	6.94
no response	7	06.19	--	--	--	--
Total	113	100.00	25.43	9.69	33.88	6.99

Mean scores and standard deviations on the OSSIT and CMIAS by students' work plans are presented in Table 25.

Although there were only three students who indicated they do not plan to work for pay, these students obtained a mean score on the OSSIT that was 14.51 points higher than any of the groups who plan to work for pay and a mean score on the CMIAS that was 4.82 points higher than any of the groups who plan to work for pay.

Table 25. Mean Score and Standard Deviation on OSSIT AND CMIAS by Work Plans.

Work Plans	n	%	OSSIT $\bar{X}$	OSSIT S	CMIAS $\bar{X}$	CMIAS S
do not plan to work for pay	3	02.65	41.00	9.54	40.33	1.19
plan to work at any job available	17	15.04	20.82	6.56	27.12	7.7
plan to work at a job for which trained	76	67.26	26.49	9.63	35.51	5.8
plan to work at a job different from that for which trained	12	10.62	24.67	10.05	32.92	6.2
no response	5	04.42	--	--	--	--
Total	113	100.00	25.43	9.69	33.88	6.99

Those students who plan to work at a job for which trained obtained a mean score on the OSSIT that was 1.82 points greater than that obtained by students indicating they plan to work at a job different from that for which trained and 5.67 points greater than that obtained by students who plan to work at any job available. Those students who plan to work at a job for which trained also obtained a mean score on the CMIAS that was 2.50 points greater than that obtained by students indicating they plan to work at a job different from that for which trained and 8.39 points greater than that obtained by students who plan to work at any job available.

Mean scores and standard deviations on the OSSIT and the CMIAS by educational plans of students participating in the study are shown in Table 26.

Table 26. Mean Score and Standard Deviation on OSSIT and CMIAS by Educational Plans.

Educational Plans	n	%	OSSIT $\bar{X}$	OSSIT S	CMIAS $\bar{X}$	CMIAS S
no plans for further education	29	25.66	23.69	8.73	31.21	6.13
plan to attend a community college or technical school for one or two years	55	48.67	27.87	9.92	36.22	6.16
plan to attend a four year college or university	18	15.93	25.75	10.33	35.39	6.08
plan to join the military for training	6	05.31	18.67	2.73	28.00	6.32
other plans for further education	3	02.65	15.33	4.16	24.67	10.97
no response	2	01.77	--	--	--	--
Total	113	100.00	25.43	9.69	33.88	6.99

Approximately two-thirds of the students (65%) plan to continue their formal education. Of these students, those who plan to attend a community college or technical school for one or two years obtained the highest mean scores on both the OSSIT and the CMIAS of any of the groups. Those students who plan to attend a four year college or university also obtained mean scores on the OSSIT and CMIAS that were higher than those obtained by students who have no plans for further education. Approximately one-fourth of the students have no plans for further education. These students obtained mean scores

on the OSSIT and the CMIAS that were higher than those students planning to join the military for training or who had other plans for further education.

Hypothesis 8: The variables of grade level, sex, amount of work experience, socioeconomic status, work plans, and educational plans bear a significant relationship to students' scores on the OSSIT.

A series of one-way analyses of variances were conducted to determine if the effects of any of these variables (grade level, sex, amount of work experience, socioeconomic status, work plans, and educational plans) were significant. The variables of grade level, sex and socioeconomic status were found not to be significant ($p < .05$). The variables of amount of work experience, work plans, and educational plans were found to be significant. The results of a one-way analysis of variance on scores on the OSSIT by work experience are presented in Table 27.

Table 27. Analysis of Variance Summary Table for Scores on the OSSIT by Work Experience.

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F Ratio
Between Groups	3	1858.9448	619.6483	7.7952**
Within Groups	108	8585.0463	79.4912	
Total	111	10443.9911		

**significant at the < .01 level of probability

To compare the means of the groups according to amount of work experience following a significant F ratio, the Duncan (1955) technique was used. It was found that the students who had been employed full-time for more than a summer with a mean of 12.63 scored significantly higher ($p < .05$) than any of the other students grouped by amount of work experience.

Table 28 presents the results of a one-way analysis of variance on scores on the OSSIT by work plans.

Table 28. Analysis of Variance Summary Table for Scores on the OSSIT by Work Plans.

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F Ratio
Between Groups	3	1165.3944	388.4548	4.4230**
Within Groups	104	8932.1241	85.8858	
Total	107	10097.5185		

**significant at the < .01 level of probability

The significant F ratio for the main effect of work plans, followed by the Duncan (1955) multiple comparison test, indicated that those students who do not plan to work for pay with a mean of 41.00 scored significantly higher ($p < .05$) than any of the other students grouped by work plans. However, there were only three students in this group. Those students who planned to work at any job available scored significantly lower ($p < .05$) with a mean of 20.82 than those students who plan to work at a job for which they have been trained.

The results of a one-way analysis of variance on scores on the OSSIT by educational plans are shown in Table 29.

Table 29. Analysis of Variance Summary Table for Scores on the OSSIT by Educational Plans.

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio
Between Groups	4	995.1315	248.7829	2.8260**
Within Groups	106	9331.4271	88.0323	
Total	110	10326.5586		

**significant at the < .03 level of probability

The significant F ratio for the main effect of educational plans, followed by the Duncan (1955) multiple comparison test, indicated that those students who plan to attend a community college or technical school for one or two years scored significantly higher ($p < .05$) than those students who plan to join the military for training or who have other plans for further education.

Hypothesis 8 can be rejected with regard to the variables of grade level, sex, and socioeconomic status. However, the hypothesis cannot be rejected with regard to work experience, work plans, and educational plans. It can be inferred that there is a relationship between these variables and scores on the OSSIT.

Hypothesis 9: The variables of grade level, sex, amount of work experience, socioeconomic status, work plans, and educational plans bear a significant relationship to students' scores on the CMIAS.

A series of one-way analyses of variances was conducted to determine if the effects of any of these variables (grade level, sex, amount of work experience, socioeconomic status, work plans, and educational plans) were significant. The variables of amount of work experience and socioeconomic status were not found to be significant ($p < .05$). The variables of grade level, sex, work plans, and educational plans were found to be significant. The results of a one-way analysis of variance on scores on the CMIAS by grade level are presented in Table 30.

Table 30. Analysis of Variance Summary Table for Scores on the CMIAS by Grade Level.

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F Ratio
Between Groups	1	287.3224	287.3224	6.1534**
Within Groups	111	5182.9431	46.6932	
Total	112	5470.2655		

**significant at the < .01 level of probability

Students participating in the study who are in the twelfth grade scored significantly higher ($p < .01$) with a mean of 34.43 than did eleventh grade students with a mean of 29.25. However, there were only twelve students participating in the study who were in the eleventh grade. Additionally,

many of the twelfth grade students in the Special Needs and CETA program groups were from one to seven years older than the average twelfth grader. The higher age of these students may have affected their scores on the CMIAS.

Table 31 presents the results of a one-way analysis of variance on scores on the CMIAS by sex.

Table 31. Analysis of Variance Summary Table for Scores on the CMIAS by Sex.

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F Ratio
Between Groups	1	949.6329	949.6329	23.3174**
Within Groups	111	4520.6326	40.7264	
Total	112	5470.2655		

**significant at the < .01 level of probability

Females participating in the study with a mean score of 35.66 scored significantly higher ($p < .01$) than males, with a mean score of 29.16.

The results of a one-way analysis of variance on scores on the CMIAS by work plans are shown in Table 32.

The significant F ratio for the main effect of work plans followed by the Duncan (1955) multiple comparison test, indicated that the students who plan to work at any job available scored significantly lower ($p < .05$) with a mean of 27.12 than both the students who do not plan to work for pay with a mean of 40.33 and those who plan to work at a job for which trained, with a mean of 35.51. However, there were only three students participating in the study who do not plan to work pay.

Table 32. Analysis of Variance Summary Table for Scores on the CMIAS by Work Plans.

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F Ratio
Between Groups	3	1113.5170	371.1723	9.6449**
Within Groups	104	4002.3349	38.4840	
Total	107	5115.8519		

**significant at the < .01 level of probability

Results of a one-way analysis of variance on scores on the CMIAS by educational plans of the students is presented in Table 33.

Table 33. Analysis of Variance Summary Table for Scores on the CMIAS by Educational Plans.

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F Ratio
Between Groups	4	1008.8791	252.2198	6.4056**
Within Groups	106	4173.0849	39.3687	
Total	110	5181.9640		

**significant at the < .01 level of probability

To compare the means of the groups according to educational plans following a significant F ratio, the Duncan (1955) technique was used. It was found that those students who plan to continue their formal education by either attending a four year college or university (with a mean = 35.39) or attending a community college or technical school for one or two years

(mean = 36.22) scored significantly higher ($p < .05$) than those students who had no plans for further education (mean = 31.21) and those who plan to join the military for training (mean = 28.00) or have other plans for further education (mean = 24.67).

Hypothesis 9 can be rejected with regard to the variables of amount of work experience and socioeconomic status. However, the hypothesis cannot be rejected with regard to grade level, sex, work plans, and educational plans. It can be inferred that there is a relationship between these variables and scores on the CMIAS.

Question 11. What aspects of the OSS Modules are most and least useful and effective for the three program groups participating in the study as judged by the students and teachers?

Table 34 presents means and standard deviations of students' responses (opinions) to statements regarding usefulness and effectiveness of the OSS Modules by program group.

The CETA students agreed with the statement that they had learned a lot from the OSS Modules that will help them at work. The Special Needs and Cooperative Office Occupations students tended to disagree with this statement. However, all three program groups disagreed with the statement that they already knew most of what was included in the Modules. The CETA students tended to agree that the Modules were more useful to them than other instructional materials they have used in class while the Special Needs students disagreed slightly and the Cooperative Office Occupations students tended to disagree. None of the three program groups agreed that the Modules

Table 34. Means and Standard Deviations of Student Opinions Regarding Usefulness and Effectiveness of the OSS Modules by Program Group.

4 = Agree Strongly 3 = Agree 2 = Disagree 1 = Disagree Strongly

Statement	Program Group: Cooperative Office Occupations (n = 37) $\bar{X}$	S	Special Needs (n = 16) $\bar{X}$	S	CETA (n = 22) $\bar{X}$	S	Total (n = 75) $\bar{X}$	S
1. I have learned a lot from Modules that will help me at work	2.22	0.76	2.33	0.90	3.19	0.60	2.53	0.86
2. I already knew most of what was included in the Modules	1.75	0.84	1.07	0.92	1.14	0.91	1.44	0.91
3. The Modules were more useful to me than textbooks, workbooks, and other instructional materials that I have used in class	2.17	0.77	2.43	0.76	2.95	0.86	2.45	0.86
4. The Modules were difficult for me to understand	1.83	0.65	2.21	0.70	1.95	0.74	1.94	0.67
5. The Modules were too easy	1.47	0.77	1.07	0.92	1.14	0.57	1.30	0.76
6. My attitudes toward employment have changed for the better after being taught the Modules	2.06	0.63	2.00	0.96	3.05	0.67	2.34	0.84

Table 34. Continued. . .

7. Overall, the Modules were excellent	1.72	0.81	2.14	0.66	3.05	0.86	2.20	0.98
8. The Module on Motivation for work was useful to me	2.17	0.74	2.43	0.65	3.14	0.73	2.51	0.83
9. The Module on Understanding Self was useful to me	2.33	0.83	2.50	0.85	3.24	0.62	2.63	0.87
10. The Module on Interpersonal Relations was useful to me	2.25	0.77	2.54	0.66	2.90	0.89	2.50	0.83
11. The Module on Problem Solving was useful to me	2.25	0.73	2.31	0.75	3.29	0.72	2.57	0.86
12. The Module on Effective Communication was useful to me	2.31	0.79	2.71	0.61	2.71	0.72	2.51	0.75
13. The Module on Coping with Conflict was useful to me	2.19	0.71	2.77	0.73	2.90	0.77	2.51	0.79
14. The Module on Creativity on the Job was useful to me	2.17	0.70	2.63	0.74	3.05	0.59	2.51	0.77
15. The Module on Authority and Responsibility was useful to me	2.22	0.76	2.46	0.88	3.05	0.69	2.51	0.83
16. The Module on Adapting and Planning for the future was useful to me	2.17	0.74	2.31	0.75	2.95	0.59	2.43	0.77

were too difficult to understand, although the Special Needs students did not disagree with the statement as strongly as the other program groups. However, all three program groups tended to disagree strongly with the statement that the Modules were too easy. Both the Cooperative Office Occupations and Special Needs students disagreed with the statement that their attitudes toward employment have changed for the better after being taught the Modules. However, the CETA students agreed with this statement. The CETA students also agreed that overall the Modules were excellent, but the Cooperative Office Occupations and Special Needs students tended to disagree.

With regard to usefulness of individual Modules, there was also some disagreement among program groups. The Cooperative Office Occupations students tended to disagree with the statements indicating usefulness for all nine Modules. The CETA students tended to agree with the statements indicating usefulness for all nine Modules. In general, the Special Needs students did not indicate strong agreement or strong disagreement with the statements indicating usefulness for any of the nine Modules.

Teachers' responses (opinions) to statements regarding usefulness and effectiveness of the OSS Modules by program group are presented in Table 35.

The CETA teacher agreed with the statement that all of the Modules were useful in his classes. However, the Cooperative Office Occupations and Special Needs teachers disagreed strongly with the statement. All three teachers agreed strongly that the Modules were more useful when the teacher selected which sessions from a Module to use in class. The CETA and Cooper-

Table 35. Teacher Opinions Regarding Usefulness and Effectiveness of the OSS Modules.

4 = Agree Strongly 3 = Agree 2 = Disagree 1 = Disagree Strongly

Statement	Cooperative Office Occupations Teacher	Special Needs Teacher	CETA Teacher	Teacher Mean Responses
1. All of the Modules were useful in my classes	1.00	1.00	3.00	1.67
2. The Modules were more useful when the teacher selected which sessions from a Module to use in class	4.00	4.00	4.00	4.00
3. The Modules were appropriate for my students	3.00	2.00	3.00	2.67
4. My students already knew most of what was included in the Modules	3.00	1.00	1.00	1.67
5. The Modules would be more useful for teachers who have more academically oriented students than I have	1.00	4.00	2.00	2.33
6. The Modules would be more useful for teachers who have students who are not as academically oriented as mine	4.00	1.00	2.00	2.33
7. The Modules were more useful to me than textbooks, workbooks and other instructional materials that I have used in class	2.00	3.00	4.00	3.00

Table 35. Continued. . .

8. The Modules were too easy for my students	2.00	1.00	1.00	1.33
9. The Modules were too difficult for my students to understand	2.00	4.00	2.00	2.67
10. After being taught the Modules my students are better prepared for work than they were	3.00	3.00	3.00	3.00
11. After being taught the Modules my students' attitudes toward employment have become more positive	3.00	3.00	3.00	3.00
12. Overall, the Modules were excellent	3.00	2.00	4.00	3.00
13. The Module on Motivation for work was useful for my students	2.00	3.00	4.00	3.00
14. The Module on Understanding self was useful for my students	3.00	4.00	4.00	3.67
15. The Module on Interpersonal Relations was useful for my students	3.00	3.00	4.00	3.33
16. The Module on Problem Solving was useful for my students	2.00	2.00	4.00	2.67
17. The Module on Effective Communication was useful for my students	3.00	2.00	4.00	2.67

Table 35. Continued. . .

18. The Module on Coping with Conflict was useful for my students	1.00	3.00	4.00	2.67
19. The Module on Creativity on the Job was useful for my students	3.00	2.00	3.00	2.67
20. The Module on Authority and Responsibility was useful for my students	2.00	2.00	3.00	2.33
21. The Module on Adapting and Planning for the Future was useful for my students	2.00	3.00	4.00	3.00

ative Office Occupations teachers agreed that the Modules were appropriate for their classes, but the special Needs teacher did not agree that they were appropriate for her students. The CETA and Special Needs teachers disagreed strongly with the statement that their students already knew most of what was included in the Modules but the Cooperative Office Occupations teacher agreed with the statement. The Special Needs teacher agreed strongly that the Modules would be more useful for teachers who have more academically oriented students than she has. The CETA teacher disagreed with this statement and the Cooperative Office Occupations teacher disagreed strongly. The Special Needs teacher disagreed with the statement that the Modules would be more useful for teachers who have students who are not as academically oriented as hers. The CETA teacher also disagreed with the statement, but the Cooperative Office Occupations teacher agreed strongly. Only the Cooperative Office Occupations teacher disagreed with the statement that the Modules were more useful than other instructional materials he has used in class. All three teachers registered disagreement with the statement that the Modules were too easy for their students. However, only the Special Needs teacher thought that the Modules were too difficult for her students to understand. All three teachers agreed that their students are better prepared for work after being taught the Modules and that their students' attitudes toward employment have become more positive. The CETA and Cooperative Office Occupations teachers agreed that overall the Modules were excellent, but the Special Needs teacher disagreed.

Question 12. What aspects of the OSS Modules were most and least attractive to the three program groups participating in the study as judged by the students and teachers?

Teachers' and students' responses to statements (opinions) regarding types of learning activities in the OSS Modules by program group are presented in Table 36.

All three teachers disagreed with the statement that each Module should be used in its entirety and agreed that the Modules needed to be supplemented with additional materials to meet the objectives of their classes. The teachers from the Special Needs and CETA program groups agreed that the case studies in the Modules were useful for their students, and their students tended to indicate that they enjoyed the case studies. However, the Cooperative Office Occupations teacher agreed that the case studies were useful but his students tended not to enjoy the case studies. The games in the Modules were perceived as useful by all three teachers, and all three groups of students tended to enjoy them. All three teachers perceived the discussions among the teacher and other students suggested in the Modules as being useful for their students. However, students in the CETA group were the only ones to indicate enjoyment with the discussions. The Cooperative Office Occupations and Special Needs students neither agreed or disagreed with the statement that they enjoyed the discussions. With regard to the role-playing activities in the Modules, the Special Needs and CETA teachers agreed that they were useful to their students. However, the Cooperative Office Occupations and Special Needs students neither agreed or disagreed with the

Table 36. Teachers' and Students' Opinions Regarding Types of Learning Activities in the OSS Modules by Program Group.

4 = Agree Strongly 3 = Agree 2 = Disagree 1 = Disagree Strongly

Statement	Cooperative Office Occupations teacher n = 1 student n = 37	Special Needs teacher n = 1 student n = 16	CETA teacher n = 1 student n = 22	Total Mean Response teacher n = 3 student n = 75
Teachers				
Each Module should be used in its entirety	2.00	2.00	2.00	2.00
The Modules needed to be supplemented with additional materials to meet the objectives of my classes	3.00	3.00	3.00	3.00
The case studies in the Modules were useful for my students	3.00	3.00	4.00	3.33
The games in the Modules were useful for my students	3.00	3.00	3.00	3.00
The discussions among the teacher and other students suggested in the Modules were useful for my students	4.00	4.00	3.00	3.67
The role-playing activities in the Modules were useful for my students	2.00	4.00	3.00	3.00

Table 36. Continued. . .

Students

I enjoyed the case studies in the Modules	2.17	2.79	2.95	2.5
I enjoyed the games in the Modules	2.64	2.71	3.14	2.8
I enjoyed the discussions with the teacher and other students	2.47	2.57	3.29	2.7
I enjoyed the role-playing activities in the Modules	2.25	2.86	3.14	2.6
The Modules were very interesting to me	2.08	2.46	3.10	2.4

statement that the role-playing activities were useful for his students. The CETA and Special Needs students indicated that they enjoyed the role-playing activities, but the Cooperative Office Occupations students indicated that they did not enjoy the role-playing activities. The CETA students agreed with the statement that the Modules were very interesting. However, the Special Needs students did not tend to agree or disagree, and the Cooperative Office Occupations students disagreed with the statement.

Qualitative Data

Qualitative data were collected throughout the study by means of classroom observation of and interviews with both teachers and students participating in the study. These data are presented at this time by program group to supplement and further explain the quantitative results presented previously.

Cooperative Office Occupations Teacher Reactions. The overall reaction of the Cooperative Office Occupations teacher to the use of the OSS Modules was favorable. Comments such as "these skills are just as important to the students as the office skills I teach and "most of my students need to work on skills like those presented in the OSS Modules" were made repeatedly by the teacher during discussion with the investigator.

However, two major reactions were made clear to the investigator throughout the study. First, there was not adequate time to use the OSS Modules in the Office Occupations program. The teacher expressed this problem when

completing the teacher opinionnaire by writing that "the use of nine Modules in approximately fifteen weeks of class left my Office Occupations classes with very little time for the improvement of the various skills which these students need on their jobs." The problem of inadequate time was especially apparent to the investigator during one of the classroom observations made. During this class period the teacher was not able to devote enough time to some of the sessions within the OSS Modules to allow for complete coverage of the topic or to allow for maximum interaction between students. This observer sensed an atmosphere of "let's get this done fast so we can get on to other things." The assumption was made by the observer that this "feeling" was also sensed by students in the class. When observing the class that was taught only those sessions from the OSS Modules that were selected by the teacher, the observer did not sense this atmosphere.

The second major reaction that was apparent in both the interviews with the teacher and in his written responses to questions regarding use of the OSS Modules was that the Modules should be used as supplementary materials only for Office Occupations classes. This reaction would seem to be a natural one given the problem of too much to do in a limited period of time.

Cooperative Office Occupations Student Reactions. The overall reaction of students in the Cooperative Office Occupations program to the OSS Modules was very similar to their teacher's. Although many of the students interviewed claimed that they already knew much of what was included in the OSS Modules, most of the students indicated that the information included in the

Modules was important for success at work. The following is a representative sampling of Office Occupations students' comments regarding the OSS Modules:

> "The Modules are good because they teach you about yourself and others and how to relate, which is important."
>
> "Some of them (sessions) are dumb or too easy, but some are good."
>
> "The Modules are good as long as they don't get in the way of learning the office skills."
>
> "Some of them are kind of a drag and not really helpful at work."
>
> "They're good because they teach you about things that happen in the real world."
>
> "I think they're important but we don't have time in this class. I think they should be taught in a psychology class."
>
> "I don't think the teacher likes them."

A common reaction among almost all of the Office Occupations students was that they do not have time to learn the occupational survival skills in their Office Occupations classes. A reaction common to many of the students was that they already knew the occupational survival skills. However, almost all of the students indicated that learning occupational survival skills was important.

Special Needs Teacher Reactions. Two major reactions by the Special Needs teacher to the OSS Modules became apparent to the investigator. First, the teacher had a favorable overall reaction to the OSS Modules. When completing the teacher opinionnaire she wrote that "overall, the structural organization of the Modules, topic selection and sequence was excellent."

During the discussions with the investigator, the teacher made comments such as "It is important that Special Needs students learn many of the skills included in the Modules" and "Concepts concerning the inner self are important to teach these students." The teacher commented that "the students' reactions to the activities were generally favorable."

However, the second major reaction of the Special Needs teacher was that the OSS Modules were too difficult for her students. Her main concerns centered on the reading level of the Modules and on the overall high conceptual basis of the Modules that she perceived. During discussions with the investigator and in written responses to the teacher opinionnaire, the following comments were made:

> "In order to meet the objectives stated in the lessons, I had to substitute relevant examples, words, and entire concepts."
>
> "The students had difficulty transferring the concept stressed in the activity and relating it to the objective stressed in the lesson."
>
> "Due to the high conceptual level, I had to verbally describe the objectives or message of the lesson. Therefore, most of the time was spent in teacher discussion, lessening the time these students need for actually experiencing an activity."

During discussions with the investigator, the teacher's concern regarding the importance of teaching occupational survival skills to these students became apparent.

Special Needs Student Reactions. The reactions of the Special Needs students interviewed to the OSS Modules were varied. However, two common reactions of the students were: 1) learning the occupational survival skills will help them to be successful at work, and 2) the OSS Modules were not too difficult for them to understand. The second reaction surfaced during the interviews despite the fact that a direct question regarding difficulty of the Modules was not asked. The following is a representative sampling of the Special Needs students' comments regarding the OSS Modules.

> "These (Modules) teach about problems at work and at home. They're worth doing."
>
> "They're good because they're not taught in any other class."
>
> "None of these (sessions) are too hard, and some of them are too easy."
>
> "Some of the kids don't like them (Modules) because they're too babyish."
>
> "The questions should be harder so you have to think more and you're not done in ten minutes."
>
> "The Modules are about the same as everything else (curriculum materials)."

While observing the classroom situations, it became apparent that most of the students were aware of the relevance of the Modules to their needs and situations. For the most part, the students were enthusiastic about learning occupational survival skills. However, despite their insistence that the Modules were not too difficult for them, problems with reading and transfer of concepts to real world examples and situations were apparent.

CETA Teacher Reactions. The overall reaction by the CETA teacher to the use of the OSS Modules was most favorable. When responding to the teacher opinionnaire, he wrote, "I thought the program was excellent. It provides a little something for everyone, and as a basis for a class would be excellent. In fact, a course in occupatinal survival skills should be required for all students at the high school level." Regarding the usefulness of the Modules for CETA students, the teacher wrote, "the Modules helped provide materials that provoked the students to think about themselves in a non-threatening way. All in all, the Modules provide an excellent forum for the kind of personal growth that leads to successful job behavior." Discussions with the CETA teacher revealed his enthusiasm for using the OSS Modules with his students. Comments such as, "these materials are just what we needed" were made repeatedly. The only reaction not completely positive was that "as a rule, I found it very difficult to stick to a fifty minute time limit for each of the sessions in a Module."

CETA Student Reactions. The CETA students reacted to the OSS Modules with the same enthusiasm as their teacher. Without exception, the CETA students interviewed stated that what they learned from the OSS Modules has helped them to be more successful at work. In addition, a majority of the students indicated that they had never been taught most of the topics included in the Modules. The following is a representative sampling of CETA students' comments regarding the OSS Modules.

"The Modules are mostly useful for work but also for personal life."

"The Modules have helped everybody in class get their heads together. They helped me to know myself and feel good about myself."

"Teaching things like the Modules would help keep people in school. If all high schools would use them, there would be less dropouts."

"People who leave or graduate from high school are not ready for work. They should have an occupational survival skills class first."

"The Modules are good, but it depends very much on the teacher. The teacher has to really get into them."

"They're kind of difficult, but challenging."

The enthusiasm of both the students and the teacher to use the OSS Modules was apparent during each classroom observation and during every interview conducted. The rapport between students and teacher was exemplified by the following comment made by one student interviewed, "The teacher is great. He's trying to teach us to deal with the world."

Summary

The overall reaction of the majority of students from all three program groups to the Occupational Survival Skills Modules was favorable. The students indicated generally that what they have learned from the OSS Modules will help them to become more successful at work. In addition, a majority of the students agreed that although skills like those included in the OSS Modules are not generally taught in high school; these skills are important and should be learned by students before they leave high school. Most stu-

dents also indicated that they enjoyed using the OSS Modules.

A major reaction of the Cooperative Office Occupations students and teacher to using the OSS Modules was that there was not adequate time to learn both the occupational survival skills and office skills under the current method of conducting the program. A major reaction by the Special Needs teacher was the OSS Modules were too difficult for her students. Although the Special Needs students indicated that the OSS Modules were not too difficult for them, difficulties in reading and in transferring concepts to their work world were apparent to the observer. The CETA students and teacher were the most enthusiastic of the three program groups toward using the OSS Modules.

This chapter has presented responses to research questions and results of hypotheses testing regarding the effectiveness and usefulness of the OSS Modules for three different student populations. The effects of different variables on the attainment of occupational survival skills by students participating in the study and on their attitudes toward employment have been presented. Chapter V summarizes these results, draws apparent conclusions, and offers recommendations for implementation of the OSS Modules as well as suggesting possible further research to be conducted.

CHAPTER V

Summary, Discussion and Conclusions, and Recommendations

Summary

The primary purpose of this study was to explore, to describe, and to interpret the influences of the Occupational Survival Skills Modules on selected Cooperative Office Occupations, Special Needs, and CETA students' attainment of occupational survival skills and attitudes toward employment. Additional purposes were to assess: 1) the effects of amount of exposure to the OSS Modules on students' attainment of occupational survival skills and their attitudes toward employment, 2) the relationships between attainment of occupational survival skills and attitudes toward employment, 3) the relationships between the variables of grade level, sex, amount of work experience, socioeconomic status, work plans, and educational plans, and students' attainment of occupational survival skills and their attitudes toward employment, and 4) the differences in students' and teachers' opinions of the usefulness and effectiveness of the OSS Modules.

Students from Cooperative Office Occupations, Special Needs, and CETA programs were selected for the study because they appeared to represent the broad spectrum of students for whom the OSS Modules would appear to be most useful and effective and because each program has a work experience component.

Students from each of the three program groups were tested on their attainment of occupational survival skills and their attitudes toward employment to determine differences as hypothesized by the investigator.

The instrument used to measure the attainment of occupational survival skills was the Occupational Survival Skills Information Test (OSSIT). Attitudes toward employment were measured by the Career Maturity Inventory-Attitude Scale (CMIAS) (Crites, 1973a).

Regarding the effect of program group membership on the attainment of occupational survival skils, significant differences ($p < .01$) in mean scores on the OSSIT were obtained between each pair of program groups. The CETA students obtained the highest mean score, followed by the Cooperative Office Occupations students. The Special Needs students obtained the lowest mean score on the OSSIT.

Regarding the effect of program group membership on attitudes toward employment, the Special Needs students obtained a significantly lower mean score ($p < .05$) on the CMIAS than both the Cooperative Office Occupations and CETA students. However, the difference between mean scores for Cooperative Office Occupations and CETA students was not significant.

An analysis of the effect of exposure to the OSS Modules on the attainment of occupational survival skills produced the following results. Students from all three program groups who were exposed to the OSS Modules (were taught all or any of the sessions within the OSS Modules) obtained significantly higher mean scores ($p < .05$) on the OSSIT than did those students who were not exposed to the OSS Modules. However, the amount of exposure to the OSS Modules, whether taught all of the sessions from the OSS Modules or taught only those sessions selected by their teachers, did not have a significant effect on the mean scores obtained on the OSSIT by any of the three program groups.

The effect of exposure to the OSS Modules on students' attitudes toward employment as measured by scores on the CMIAS was not significant for any of the program groups.

An analysis of the relationship between scores obtained on the OSSIT and on the CMIAS by all students participating in the study resulted in a correlation coefficient of .506 ($p < .01$). Positive correlation coefficients ($p < .01$) were also obtained for scores by program group (.335 for Cooperative Office Occupations, .617 for Special Needs, and .595 for CETA) and exposure to the OSS Modules (.632 for those taught all of the OSS Modules, .478 for those taught only sessions selected by their teachers, and .395 for students not taught any of the OSS Modules).

Significant differences in mean scores on the OSSIT were found between students with different amounts of work experience ($p < .01$), different work plans ($p < .01$), and different educational plans ($p < .05$). However, significant differences were not found between students in the eleventh and twelfth grades, between males and females, or between students from different socioeconomic levels.

Significant differences ($p < .01$) in mean scores on the CMIAS were found between students in the eleventh and twelfth grades, males and females, students with different work plans, and with different educational plans. Significant differences were not found between students with different amounts of work experience, and students from different socioeconomic levels.

Differences of opinions regarding the usefulness and effectiveness of the OSS Modules were found to exist among the three program groups. As

evidenced by both written and verbal responses, the CETA students and teacher reacted most favorably of the three program groups to the usefulness and effectiveness of the OSS Modules.

In general, the Special Needs students and teacher reacted less favorably to the OSS Modules than did the CETA students and teacher. The Special Needs teacher expressed concern that the OSS Modules, in their present form are too difficult for Special Needs students. Difficulties with the reading level and with transfer of concepts to practical usage were the two most apparent problems for Special Needs students.

The Cooperative Office Occupations students and teacher offered the least favorable reaction of the three program groups to the usefulness and effectiveness of the OSS Modules. In general, the teacher and students agreed during discussions with the investigator that learning occupational survival skills is important. However, the major reaction of the Cooperative Office Occupations students and teacher centered on the concern of inadequate time to learn both occupational survival skills and necessary technical office skills as the Office Occupations program is conducted currently.

Discussion and Conclusions

Results of this study indicated significant differences in attainment of occupational survival skills and maturity of attitudes toward employment among the three program groups. However, in many cases the results were not consistent with the predictions made by the investigator at the outset of the study. In addition, some discrepancy was apparent between quantita-

tive and qualitative data collected.

Possible explanations for, and discussion of, the results are presented below. Conclusions made by the investigator are also presented. Conclusions made from this study are based on the use of the OSS Modules with selected high school students. A description of these participants begins on page 52. Generalizability is limited to student populations with similar characteristics.

Performance on OSSIT by Program Group. Differences in program group mean scores on the OSSIT were predicted. However, the order in which these differences occurred was not expected. It was predicted that the CETA students would score significantly lower than both the Special Needs and Cooperative Office Occupations students on the OSSIT and that the Cooperative Office Occupations students would score significantly higher on the OSSIT than the other two program groups. In fact, the CETA students scored significantly ($p < .05$) higher than the other program groups; and the Special Needs students scored significantly ($p < .05$) lower.

1. CETA--Two explanations for the performance of the CETA students are suggested. First, the assumption made by the investigator at the outset of the study that the CETA students were not as academically able as either the Cooperative Office Occupations or Special Needs students appears to have been erroneous. Based on classroom observations, discussions with students, and responses to questions on the student opinionnaire, the CETA students who participated in this study seemed to be the most motivated to learn occupational survival skills of the three program groups. Motivation

for learning occupational survival skills may require more of a job orientation than an academic orientation. Much of this apparent motivation may have resulted from the perceived relevance of the content included in the OSS Modules to the CETA students as evidenced by their responses to questions on the student opinionnaire and by statements made to the investigator during interviews.

Second, the relationship between the CETA students who were exposed to the OSS Modules and their teacher was an extraordinary one. During classroom observations, it was apparent to the investigator that the teacher had developed a rapport with the students which helped enable him to capitalize on the student motivation to learn occupational survival skills.

The performance of the CETA program group on the OSSIT and the perceived relevance of learning occupational survival skills suggest that the OSS Modules can be both useful to, and effective for, CETA students.

2. Cooperative Office Occupations--The relative performance of the Cooperative Office Occupations students on the OSSIT was worse than predicted by the investigator at the beginning of the study. The degree of perceived relevance of, and hence motivation for, learning occupational survival skills is one possible explanation for this result.

A discrepancy existed between the responses to questions on the student opinionnaire and much of the information collected through discussions between the investigator and students. Data from the student opinionnaire indicated the Cooperative Office Occupations students did not perceive the OSS Modules as being relevant and indicated an apparent

lack of motivation to learn occupational survival skills. However, statements made to the investigator during interviews and discussions with students indicated a perceived relevance and motivation for learning occupational survival skills.

The factor that might explain the performance of the Cooperative Office Occupations students on the OSSIT, and may help to explain the discrepancy between the quantitative and qualitative data, was a lack of adequate time to learn occupational survival skills. Unlike the formal classroom experiences of the CETA and Special Needs students, which were designed to include the teaching of topics like occupational survival skills, the Cooperative Office Occupations class time was designed to be directed toward the development of specific, technical office skills. As evidenced by both written and verbal responses, the Cooperative Office Occupations students tended to view the learning of occupational survival skills as being accomplished at the expense of learning necessary office skills.

Overall, these students tended to place secondary importance on learning occupational survival skills. During discussions with students, the notion that employment would result from the attainment of office skills, not occupational survival skills, was prominent among the Office Occupations students. To a lesser degree, these feelings were expressed by the teacher in response to questions on the teacher opinionnaire. This notion of secondary importance may have contributed to the apparent lack of motivation by the Cooperative Office Occupations students to learn occupational survival skills.

Given a limited amount of time, both the teacher and students were forced to place primary emphasis on either learning specific office skills or learning occupational survival skills. The findings suggest that learning occupational survival skills was perceived as having secondary relevance and may have resulted in less motivation by both the teacher and students. The apparent lack of motivation to learn occupational survival skills, as indicated by data collected from the student opinionnaire, may have resulted from students being forced to choose between learning specific office skills or learning occupational survival skills. Statements regarding inadequate time to learn both occupational survival skills and office skills were made by students to the investigator during discussions as reasons for concentrating on office skills rather than occupational survival skills. Students' responses may have reflected a desire to continue learning office skills rather than the apparent lack of motivation to learn occupational survival skills. Responding in a negative manner to learning occupational survival skills may have been one method perceived to ensure the continued teaching of office skills.

In order for the OSS Modules to be used effectively by Cooperative Office Occupations students and teachers, it appears that a feeling of acceptance and enthusiasm for learning occupational survival skills must first be generated. From this study, it seems apparent that acceptance and enthusiasm for the OSS Modules cannot be expected if adequate time is not available to teach both office skills and occupational survival skills. These findings suggest that to be accepted by teachers and students in any

vocational program, occupational survival skills must not be viewed as a set of skills that can be learned only at the expense of not learning technical skills.

3. Special Needs--Prior to the study, the investigator did not have clear expectations regarding how the Special Needs students would react to learning occupational survival skills, or how they would perform on the OSSIT. Results indicated that the Special Needs program group obtained a significantly lower ($p < .05$) mean score on the OSSIT than both the CETA and Cooperative Office Occupations students.

Responses to questions on the student opinionnaire tended to indicate a lack of perceived relevance and motivation to learn occupational survival skills. However, the perception of the relevance of learning occupational survival skills was made apparent to the investigator by both the students and teacher during classroom observations and discussions. These observations and discussions suggest that the poor performance on the OSSIT by the Special Needs program group did not result from a lack of motivation to learn occupational survival skills. This conclusion is supported by the fact that the student opinionnaire data indicated that the Special Needs students were more highly motivated to learn occupational survival skills than the Cooperative Office Occupations students but scored significantly lower ($p < .05$) on the OSSIT.

These findings suggest that the explanation for the performance of the Special Needs students on the OSSIT lies with the difficulty of the OSS Modules. Although certain students made it clear that they felt that the

Modules were not too difficult for them, it became apparent to the investigator and to the teacher that these students were having difficulty with the reading level of the Modules and with transfering concepts included in the Modules to their work world. Responding to written questions on the OSSIT regarding occupational survival skills was also a difficult task for these students to perform. A verbal test regarding occupational survival skills might be more appropriate for some Special Needs students.

From this study, it may be concluded that the OSS Modules, in their present format, are not appropriate for a majority of Special Needs students of the type represented in this study (Minimally Mentally Impaired). Teaching occupational survival skills to Special Needs students of this type appears to be relevant to their needs and aspirations for success at work. However, the OSS Modules would need to be revised, taking into consideration the special characteristics of the students, in order for a greater benefit from learning occupational survival skills to manifest itself.

Performance on OSSIT by Amount of Exposure to the OSS Modules. Prior to conducting the study, the prediction was made that attainment of occupational survival skills, as measured by scores on the OSSIT, would be greater for groups who had more exposure to the OSS Modules. Students who were taught all or some sessions of the OSS Modules did obtain significantly higher ($p < .05$) mean scores on the OSSIT than students who were not taught the OSS modules. However, the results indicated that amount of exposure to the OSS Modules (number of sessions taught) did not have a significant effect on scores on the OSSIT.

A possible explanation for this result is now apparent to the investigator. An absolute and clear-cut distinction between teaching all or some of the OSS Modules was not made by the investigator or the teachers participating in the study. The only common distinctions made were that those students who were taught some sessions of the OSS Modules were taught at least one session from each of the nine OSS Modules, and that those students taught all of the OSS Modules were taught all of the sessions from each of the nine OSS Modules. Discussions with the teachers indicated that those sessions perceived by teachers as being well-received by students, as having "worked well," as being most important, or as fitting in well with other classroom activities were used with both groups of students.

In addition, the teachers tended to include summary statements or comments concerning the important points from those sessions not utilized. Consequently, the distinction between teaching all or some of the OSS Modules was reduced substantially.

The findings of this study seem to support the conclusion that attainment of occupational survival skills is greater for students who are taught the OSS Modules. For the most part, however, the attainment of occupational survival skills is accomplished equally as well by students who are taught all of the OSS Modules and students who are taught teacher selected sessions from the OSS Modules in a supplementary manner with other curriculum materials and classroom activities.

Through discussions with the teachers, it became apparent to the investigator that when given a choice teachers selected sessions from the

OSS Modules that they thought students would enjoy. In addition, sessions selected for use dealt with topics that were not covered adequately through other curriculum materials. Curriculum materials that are perceived as being relevant, enjoyable to students, and deal with topics not covered adequately by other curriculum materials would seemingly be chosen for use by most teachers.

Apparent Benefit to Program Group. In this study an attempt was made to determine which program group derived the most benefit from being taught occupational survival skills. For this study, benefit was defined as differences in mean scores on the OSSIT between like program groups who were taught all or some of the sessions and who were not taught any of the OSS Modules were determined. At the outset of the study, it was predicted that the greatest benefit (difference) would be derived by the CETA students, and that the Cooperative Office Occupations students would benefit the least.

Results indicated that the Cooperative Office Occupations students derived a significant ($p < .05$) benefit from being taught occupational survival skills. The Special Needs students benefited slightly, and the CETA students derived virtually no benefit.

1. Special Needs--The fact that the Special Needs students appeared to benefit only slightly is consistent with the findings discussed earlier. The OSS Modules, in their current format, do not appear to be appropriate for use with minimally mentally impaired Special Needs students.

2. Cooperative Office Occupations--The benefit derived by the Cooperative Office Occupations students was not expected. An explanation for the

discrepancy between the predicted and derived benefit lies with the apparently erroneous assumption made by the investigator prior to conducting the study that the Cooperative Office Occupations students already knew much of the information contained in the OSS Modules. An important implication from this result is that the OSS Modules may have as much relevance and utility for student groups perceived as being more academically capable as it has for others.

3. CETA--The results indicating virtually no benefit from being taught the OSS Modules to the CETA students participating in the study are inconsistent with the feedback obtained by the investigator from discussions with the students and teacher. Two possible explanations for the lack of measurable benefit are suggested.

First, the measurement process may have been inadequate. The CETA students may not have been as skilled at taking a paper and pencil test (test wise) as the Cooperative Office Occupations students. Additionally, the CETA students may not have been as motivated to do their best on a test due to previous negative academic experiences.

A second possible explanation is that the CETA students who were not taught the OSS Modules may have been an extraordinary group and therefore not an appropriate comparison group. This explanation seems plausible when one considers that this group of CETA students obtained a significantly higher mean score on the OSSIT than any of the Cooperative Office Occupations or Special Needs groups.

Performance on the CMIAS. Maturity of attitudes toward employment were predicted to bear a significant relationship to attainment of occupa-

tional survival skills. A positive correlation (.506) was obtained between scores on the OSSIT and CMIAS. However, significant differences in mean scores on the CMIAS were not found between groups who had experienced different amounts of exposure to the OSS Modules.

In this study, the relative stability of maturity of attitudes toward employment was not altered significantly by exposing students to curriculum materials that are highly cognitive in nature. To be effective in helping students develop mature attitudes toward employment, it appears that the cognitive information contained in the OSS Modules may need to be combined with positive work experiences. It appears that the fifteen week time period utilized in this study may not have been sufficient time for changes in, or development of, attitudes toward employment to be manifested on the CMIAS.

Effects of Grade Level. Students participating in this study were members of either the eleventh or twelfth grade. Results indicated that the variable of grade level did not have a significant effect on attainment of occupational survival skills, as measured by the OSSIT. However, this result is somewhat inconclusive since only twelve participants in the study were members of the eleventh grade.

From this study, there was no indication that the OSS Modules were more or less effectively utilized by either grade level. It appears that whether students are in the eleventh or twelfth grade is not an important consideration when deciding where the OSS Modules can best be utilized.

Twelfth grade students did have significantly ($p < .05$) more mature attitudes toward employment, as measured by the CMIAS, than eleventh grade

students. This result is consistent with career development theory. This result is explained further when the age of many of the twelfth grade Special Needs and CETA students is taken into account. The majority of these students were over eighteen years of age, while the students in the eleventh grade tended to be less than seventeen.

Effects of Sex. Approximately 73% of the students participating in the study were female. Results indicated that females had significantly ($p < .05$) more mature attitudes toward employment than males. In this study, the variable of sex did not have a significant effect on attainment of occupational survival skills, as measured by the OSSIT. This result suggests that the variable of sex should not be used as a criterion for determining with which students the OSS Modules should be utilized.

Effects of Amount of Work Experience. Results indicated that students who had been employed full-time for more than a summer had a significantly greater ($p < .05$) attainment of occupational survival skills, as measured by the OSSIT, than did students who had lesser amounts of work experience. This result may indicate that occupational survival skills are attained to a greater extent from actual work experience. The result might also indicate that students with greater amounts of work experience perceived a greater relevance of the OSS Modules, and may have, therefore been more motivated to learn occupational survival skills than were students with lesser amounts of work experience. This result suggests that the OSS Modules may be used more effectively with students as they gain increasing amounts of work experience.

Amount of work experience did not affect significantly maturity of attitudes toward employment, as measured by the CMIAS. The result adds support to the concept of maturity being a function of age to a greater extent than of other variables including amount of work experience.

Effects of Socioeconomic Status. In this study, differences in socioeconomic status, as measured by occupation of head of household, were found not to result in significant differences in scores on the OSSIT or CMIAS. One explanation for this result may be that all of the students participating in this study were either in vocational programs or were disadvantaged. Students from both of these categories tend to score lower on the CMIAS than the students who formed the standardization sample for the instrument (Crites, 1973b). Had other program groups, such as college preparatory, been included in the study, the results may have been different.

Effects of Work Plans. At the conclusion of the fifteen week period, the students participating in this study indicated their work plans to the investigator. Those students who indicated that they plan to work at a job for which trained were also the ones who had significantly ($p < .05$) greater attainment of occupational survival skills, as measured by the OSSIT and were significantly ($p < .05$) more mature in their attitudes toward employment as measured by the CMIAS, than those students who plan to work at any job available.

These results may imply (as was the case with amount of work experience) that perceived relevance of the OSS Modules by the students may be a criterion for determining with which groups of students the OSS Modules can best

be utilized. Students who plan to work at a job for which trained may be better able to envision a direct utility from learning occupational survival skills.

Another explanation for this result might be that the OSS Modules affected the work plans of the students. The conclusion might be made that learning occupational survival skills affected the students' perception of the relevance and utility of their current classroom experiences and/or vocational training.

The significantly ($p < .05$) more mature attitudes toward employment of students who plan to work at a job for which trained may be explained to some extent by the notion that these students may be more goal-oriented and self-directed than those students who plan to work at any job available. In this respect their maturity of attitudes toward employment may be an indication of a higher general level of maturity.

Effects of Educational Plans. At the conclusion of the fifteen week period, students were also asked to indicate their educational plans. Those students who indicated that they plan to attend a community college or technical school were also the ones who showed significantly ($p < .05$) greater attainment of occupational survival skills, as measured by scores on the OSSIT, than those students who have no plans for further education. One explanation for this result may be that the students who have plans for further education may have a higher degree of academic ability or motivation which was reflected on their performance on the OSSIT. These students may be members of the same group who plan to work at a job for

which trained. If so, training for many of these students may include further formal education. Since the attainment of occupational survival skills was determined in this study only by performance on the OSSIT, the results may be a reflection of general academic ability of students participating in the study.

A higher general level of maturity of students who plan to continue their formal education may be reflected in their significantly more mature attitudes toward employment.

Recommendations

The results of this study suggest that the teaching of occupational survival skills is relevant to the current occupational needs and future career aspirations of a wide range of high school students. The OSS Modules may be introduced as part of the overall career education emphasis into academic and/or vocational and technical education programs. Three possible methods of utilizing the OSS Modules appear to be available. First, different aspects of the OSS Modules can be integrated into a number of ongoing courses. Second, a special course might be designed to teach only occupational survival skills. Third, the occupational survival skills can be taught as part of a specific course being offered currently in various educational programs.

In order for the OSS Modules to be used more effectively and to be more useful to both teachers and students, it appears that certain conditions should be met. First, the complexity and difficulty of the OSS Modules should be compatible with the learning abilities of the students who are

being taught the occupational survival skills. Second, the structure of any program where the OSS Modules are utilized should be such that adequate time is allowed for teaching both the technical skills germane to the program and occupational survival skills. Time should be allocated to integrate teaching of topics such as occupational survival skills into programs designed to develop technical skills. Third, teacher enthusiasm for teaching occupational survival skills and a rapport between students and teacher will encourage more effective use of the OSS Modules.

The following recommendations are based on the findings relating to use of the OSS Modules with different student populations. These recommendations are presented as guidelines for further research and for implementation of the results of the study.

For a majority of high school students, the difficulty level of the OSS Modules appears to be appropriate. However, it is recommended that the OSS Modules be revised in order to be more compatible with the abilities of a majority of Special Needs students. Particular attention should be given to reducing the reading level of the OSS Modules. Learning activities should be developed to help Special Needs students transfer relevant information and concepts from the OSS Modules to situations they may encounter on the job. Since the range of abilities and handicaps is particularly great among Special Needs students, allowances for individualized pacing of learning occupational survival skills should be incorporated into the OSS Modules. For some Special Needs students activities which entail reading and writing might be eliminated. In addition, topics such as leadership

and using creativity on the job may create feelings of inadequacy for many Special Needs students since they may not be able to compete successfully with other workers in these specific areas. These topics might be replaced with topics related more directly toward applying for a job, personal finance and keeping a job.

Methods need to be developed to incorporate the teaching of occupational survival skills into the structure of specialized vocational and technical education programs. Cooperative education programs with related classroom instruction time allocations may provide one method available currently. Studies should be conducted to determine what is being taught currently in related classroom time. It appears that related classroom instruction is too often utilized in cooperative education programs to teach further specific skills needed by students to perform particular vocational or technical tasks. For example, in this study the Cooperative Office Occupations students did not have a related class. Instead, the class time was utilized to teach specific office skills. As a result, there was not adequate time to teach occupational survival skills. It is recommended that related classroom instruction time be made available to teachers and students in cooperative education programs to teach topics such as occupational survival skills. This instruction time should not be utilized to teach specific vocational skills needed to perform a particular job or task.

Studies should be conducted to determine the attitudes of vocational and technical education teachers toward teaching topics such as occupational survival skills. In-service activities should be arranged to inform

teachers and administrators of the relevance and importance of teaching topics such as occupational survival skills and to aid them in determining the content for related classroom instruction. In addition, in-service activities should be conducted to prepare teachers to teach occupational survival skills.

The teaching of occupational survival skills might be introduced into selected academic programs as part of the overall career education programs conducted in many school districts. Learning occupational survival skills appears to be relevant and of interest to all students, not just to those engaged in vocational and technical education programs.

The extent to which occupational survival skills might be learned eventually by most workers after an extended period of time on the job should be investigated. Cross-sectional research studies should be conducted to determine the differences in attainment of occupational survival skills by individuals as they progress through their adult working lives. Longitudinal studies should be conducted with students who have and have not been taught topics such as occupational survival skills in high school programs to determine differences in meaningfulness, satisfaction, and productivity between these workers. The results of these studies might form a rationale for teaching occupational survival skills to adult workers. Findings of these studies might determine whether adult workers can benefit from being taught the same set of occupational survival skills as high school students or if different occupational survival skills are needed by adult workers at various stages of their working lives. Adult education

programs in schools and business organizations should broaden their curricula and training programs to encourage the development of a wider spectrum of human abilities than those represented traditionally in standard programs.

CETA students participating in the study who had previously dropped out of high school for one reason or another indicated that learning the occupational survival skills while in high school might have encouraged them to finish high school. It is recommended that occupational survival skills be taught to students at any grade level in high school, regardless of their educational program, who have been identified as potential drop-outs. Studies should be conducted to determine the effects of teaching occupational survival skills on these students' attitudes toward finishing high school. Studies should also be conducted to determine the effects of teaching occupational survival skills on the actual high school dropout rate.

Students who have indicated that they plan to participate in a cooperative education program during their junior and/or senior year in high school might be taught the occupational survival skills prior to their actual enrollment in the cooperative education programs to help ensure a successful cooperative experience. Studies should be conducted to determine the effects of learning occupational survival skills on work performance at cooperative education students' job training stations.

Studies should be conducted on a continuing basis to identify and compare additional occupational survival skills with those skills included currently in the OSS Modules. The purpose of these studies should be to

promote relevant work training programs based on current assessments of skills needed for successful work experiences.

Further research utilizing the OSS Modules with students from various educational programs, including pre and posttest studies, should be conducted to shed additional light on many of the issues addressed in this study. Revision of the OSSIT, so that it measures specific knowledge of occupational survival skills, might also provide additional information regarding use of the OSS Modules.

Information collected by the investigator from discussions with students and teachers during this study lends support to the conclusion that teaching occupational survival skills in various educational programs may help to prepare individuals for work.

The literature seems to indicate that the accelerating changes in technology and the post-industrial shift to service economies are affecting skill requirements in unpredicted ways. Discussions with employers by the investigator over time suggests an increasing concern among employers that attention needs to be given in school to skills such as planning, adapting, and problem solving that are applicable to broad organizational concerns. Orienting people to the use of skills such as occupational survival skills which they need on the job may be as important, or even more important, than teaching the technical aspects of their work. There may be a long-term benefit to both employee and employer from learning skills such as those included in the OSS Modules.

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APPENDIX A

CAREER MATURITY INVENTORY—ATTITUDE SCALE

Appendix A OF THIS DOCUMENT HAS BEEN REMOVED BECAUSE IT CONTAINED COPYRIGHTED MATERIAL.

APPENDIX B

OCCUPATIONAL SURVIVAL SKILLS INFORMATION TEST

OCCUPATIONAL SURVIVAL SKILLS INFORMATION TEST

Student Data Sheet

The questions you are asked to answer below will be used to help determine in which school programs the Occupational Survival Skills Modules should be used. By answering carefully these questions, you will help yourself prepare to work. Please complete the questions to the best of your knowledge. Be sure to answer each question.

1. My grade level is:

   _____11th (Junior)

   _____12th (Senior)

2. My sex is:

   _____Male

   _____Female

3. I have had work experience as follows:

   _____Never been employed

   _____Employed part-time only

   _____Employed full-time for more than a summer

   _____Employed full-time for more than a summer but part-time during the school year

4. My father's occupation (or mother's occupation if she is the head of household) is:

   _____

   _____

5. My father's occupation (or mother's occupation if she is the head of household) can be classified best as follows:

_____Professional or technical worker

_____Manager

_____Sales worker

_____Clerical worker

_____Service worker

_____Craftsman or Foreman

_____Semi-skilled worker

_____Laborer or unskilled worker

6. After high school, my work plans are as follows:

_____I do not plan to work for pay

_____I plan to work at any job I can find

_____I plan to work at a job for which I have been trained

_____I plan to work at a job that is different from that for which I have been trained

7. After high school, my educational plans are as follows:

_____I have no plans for further education

_____I plan to attend a community college or technical school for one or two years

_____I plan to attend a four year college or university

_____I plan to join the military for training

_____Other plans (please explain below)

OCCUPATIONAL SURVIVAL SKILLS INFORMATION TEST*

DIRECTIONS

This is a test of your knowledge of occupational skills needed in the world of work. Before you begin, read the sample question below and make sure you understand how to mark the answer.

SAMPLE QUESTION

Which one of the following do most people have to do to earn money?

_____A. Exercise

_____B. Sleep

__X__C. Work

_____D. Relax

If you have questions about the sample, raise your hand. For each question there is always one best answer. You should answer each question. There is no time limit, but do not spend a great amount of time on any one question. Erase if you wish to change any answer.

*Developed by James A. Leach to test students' attainment of occupational survival skills.

1. Which of the following best explains work?

_____A. work is done when you are paid for something that you don't really want to do

_____B. work is done when you really try to do something to satisfy other people's needs

_____C. work is done when you really try to do something to satisfy your own needs and also to satisfy other people's needs

_____D. work is done only when you make money for what you do

2. Which of the following is the most basic of all human needs?

_____A. physical needs

_____B. security needs

_____C. social needs

_____D. need for self-respect and worth

3. Which of the following basic human needs is the <u>least</u> <u>satisfied</u> by most workers?

_____A. physical needs

_____B. security needs

_____C. social needs

_____D. needs for self-fulfillment

4. John feels as though he is in a situation in which he must try to meet the needs of others but is not allowed to do anything to meet his own needs through his job. Which of the following is the best description of his situation?

_____A. normal working conditions

_____B. slavery

_____C. a satisfying job

_____D. voluntary work

5. When George began looking for a job, what he cared about most was that the company he went to work for had good medical insurance for employees and a good retirement plan. He did not want to worry about what would happen if he got sick or how he would live when he retired. Which of the following basic human needs does George care most about?

_____A. physical needs

_____B. security needs

_____C. social needs

_____D. needs for self-respect and worth

6. People should look at their own needs and how these needs can be satisfied through work. Which of the following does not agree with this statement?

_____A. since each person is different, individuals are likely to have different reasons for working

_____B. to many people, work means more than just a way to earn money

_____C. work means satisfying only the needs of others and is almost like slavery

_____D. work can be very satisfying and rewarding if it satisfies not only physical and security needs, but also other types of needs such as social needs, needs for self-respect and self-fulfillment needs.

7. Standards for deciding whether something is good or bad are called:

_____A. perceptions

_____B. behaviors

_____C. values

_____D. interests

8. Stereotypes can affect a person's perceptions. Which of the following is an example of a stereotype?

_____A. nurses are women

_____B. daydreaming is a waste of time

_____C. a fair day's pay for a fair day's work

_____D. a poor self-concept

9. A person who says "The way to be happy is to enjoy myself and not think about my problems" probably believes that:

_____A. it is easy to spend more time and energy in staying away from problems than it would take to solve them

_____B. staying away from problems is easier than solving them

_____C. staying away from a problem can often make it seem bigger than it really is

_____D. staying away from problems, over a long time, almost always makes them worse and harder to deal with than they were in the first place

10. Joan has worked for the same company for over two years and has been doing the same job for all of that time. She is very good at her work. She has been offered new responsibilities and challenges at different times. However, Joan has never taken the opportunities because she is frightened she will do poorly at a new job and mess up her future with the company. Which of the following beliefs does this situation best describe?

_____A. I have control over my feelings

_____B. solving problems is easier than staying away from them

_____C. I must not fail at anything—if I do, it means that I am either stupid, lazy, or bad

_____D. most things in life that seem scary or dangerous seem that way because I want to look at them that way

11. Ivan and Terry were fighting about whether it is possible to change your feelings about people and things. Terry said that "Other people and things cause my feelings." Terry thought that things that happened in the past cause how she feels now. Which of the following sentences shows how Terry would end the talk?

_____A. feelings can be changed if you try hard enough

_____B. feelings can be changed easily

_____C. people have no control over their feelings

_____D. people have control over their feelings

12. People should look at themselves all the time in work situations and think about changes they want to make in their actions. On which of the following is this statement based?

_____A. self-understanding is a thing people should do all through their lives, because people are always changing

_____B. once people become older their perceptions, feelings, and values will not change

_____C. self-evaluation is a hard job that needs to be done only once in a lifetime

_____D. people cannot learn about themselves from other people

13. Which of the following is <u>not</u> a problem in interpersonal relations?

_____A. people having different perceptions of a certain situation

_____B. people becoming upset or angry with others

_____C. people who do not have the needed skills to finish a job

_____D. people who do not notice others' feelings

14. Headaches, stomach ulcers, high blood pressure, and/or heart attacks are more likely to happen when people:

_____A. do not notice and express feelings

_____B. express positive feelings

_____C. express negative feelings

_____D. learn ways of expressing their feelings

15. Our relationships with other people are greatly caused by how we "see" or "hear" them. We see or hear other people through our prejudices and biases. This idea is shown best by:

_____A. workers pulling together to help a fellow worker with a big job

_____B. a boss who thinks a new worker will be a troublemaker because the new worker looks like a past employee who was fired for causing trouble

_____C. workers all through a company showing a positive attitude toward their jobs

_____D. a worker who is good at the technical parts of the job but has trouble getting along with fellow workers

16. Andrew's desk is across from the office door. Even though he is not the receptionist, almost everyone stops at his desk for directions. At first he was very nice in helping them find the person for whom they were looking. Lately, however, he has become angry with the many questions. Sometimes he won't even look up at the person but just points in the direction the person should go. The problem is causing Andrew to do poor work and he wants it cleared up. Andrew should:

_____A. be unfriendly to people asking for directions so they will ask someone else the next time

_____B. accept the job of giving directions as another part of his work load

_____C. openly talk about the problem with his boss to try to figure out an answer to the problem

_____D. ignore the problem because it will probably go away in time

17. Which one of the following best describes the importance of good interpersonal relations on the job:

_____A. workers who do not have the necessary technical skills will lose their jobs

_____B. in order to be successful, workers must be able to handle the technical skills of the job but must also be able to notice and express feelings at work and get along with fellow workers

_____C. to be successful, a worker must be able to get along with all fellow workers no matter what the situation

_____D. workers with the necessary technical skills do not have to be worried about getting along with fellow workers

18. Negative feelings can later show up as a bad mood, a headache, or a sudden "explosion" over a small thing that made you angry. Which of the following is the idea upon which this statement is based?

_____A. negative feelings, such as anger, will not go away by themselves

_____B. people have feelings both on and off the job

_____C. most people lose their jobs because they can't get along with fellow workers

_____D. it is best to try to forget about negative feelings because they will go away by themselves in time

19. Problem solving can best be described as:

_____A. working in groups to gather facts

_____B. the process of deciding what to do about something

_____C. looking at the results of a decision

_____D. working by yourself to come up with ideas

20. Which one of the following is true of problem solving:

_____A. the ability to solve problems is something you are born with, you either have it or you don't

_____B. every problem has one good solution

_____C. one thing that can make a problem harder to solve is not understanding for sure what the real problem is

_____D. once you figure out a solution to a problem, you are finished solving the problem

21. Looking at a solution to a problem to see how it worked and to find out if anything else needs to be done is called:

_____A. fact finding

_____B. idea finding

_____C. solution finding

_____D. evaluating

22. Rhoda works as the secretary for a small business. Her employer owns the business. One day Rhoda had to get some letters typed before the mail was picked up. The boss' wife brought in a job for her country club meeting and wanted it typed right away. Rhoda could not finish both jobs before the mail was to be picked up. The same thing had happened several other times. Which of the following best states the <u>real</u> problem?

_____A. Rhoda had an important job to do that would not be finished if she did the job for her boss' wife

_____B. the boss' wife is inconsiderate of Rhoda's situation

_____C. how can Rhoda get some help to finish both jobs

_____D. does the business work or the boss' wife's work come first and how can Rhoda find out

23. Many people try to solve problems by staying with one solution even if the solution does not solve the problem. These people have the wrong belief that:

_____A. every problem has one good solution

_____B. solving problems mostly involves trial and error

_____C. evaluating a solution to a problem is an important part of problem solving

_____D. if a solution does not solve the problem they should start the problem solving process over

24. People can develop good problem solving skills through practice. Which of the following does <u>not</u> support this statement?

_____A. most people can develop their ability to solve problems

_____B. because people face many kinds of problems, they need to learn to be flexible in their thinking

_____C. the ability to solve problems is something you are born with—you either have it or you don't

_____D. people can develop their ability to solve problems by learning and using the steps of the problem solving process

25. Which of the following best describes communication?

_____A. one person giving directions for finishing a job to another person

_____B. an exchange of thoughts, opinions, or information between people

_____C. two or more people talking about something important

_____D. written messages between people

26. A person's self-concept affects his or her ability to communicate with others. Self-concept refers to:

_____A. how people see themselves or opinions persons have of themselves

_____B. how well a person understands the message

_____C. giving information clearly so that the receiver can understand the message

_____D. how people see others or opinions persons have of others

27. Mistakes that are made by workers because they did not understand the directions for a job usually happen because of:

_____A. one-way communication

_____B. two-way communication

_____C. lack of supervision

_____D. poor self-concept

28. Jill is a new worker at a small company. She has difficulty talking with other people. Jill is getting upset because some of her fellow workers are trying to tell her how to do her job. Jill is certain that she can learn the job by herself and does not want to be told what she is doing wrong. One fellow worker said to Jill, "You always think you're right. Can't you ever say that you're wrong?" This communication problem probably happened because of:

_____A. Jill's poor self-concept

_____B. Jill's fellow workers not giving information clearly

_____C. Jill and her fellow workers not listening to each other

_____D. Jill's not liking her job

29. Two-way communication is different from one-way communication because:

_____A. two people are involved in the communication

_____B. the receiver is not allowed to talk to the sender of the message

_____C. the receiver of the message makes a response to the sender, for example, asking a question

_____D. the sender gives the message to the receiver at least twice in two-way communication in the exact same way

30. Two-way communication is more effective than one-way communication. Which of the following is the reason for this?

_____A. the more people involved in communication the better

_____B. the sender of a message should never be stopped by the receiver since this will confuse both people

_____C. when the receiver of a message listens to the sender without making any response the sender knows the message has been understood

_____D. when the receiver of a message responds to the sender, for example, by asking a question, the message will probably be understood

31. Which of the following best describes conflict?

_____A. a conflict ends in a violent fight between people

_____B. conflict happens when a person's actions interfere with or frighten another person

_____C. conflict only happens when one person is right and the other person is wrong

_____D. conflict situations are always bad

32. A good means of dealing with conflict is compromise. Which of the following best describes compromise?

_____A. delaying

_____B. avoiding

_____C. confronting with power

_____D. give and take

33. Jerry handles a conflict situation by changing the subject when the conflict comes up when talking. Jerry is:

_____A. confronting the conflict situation

_____B. delaying the handling of the conflict situation

_____C. avoiding the conflict situation

_____D. compromising by not talking about the conflict situation

34. The last stage of a conflict is called ajustments. One or both sides may decide to make some change in their behavior. If one side is asked to make all the adjustments, which of the following is likely to happen?

_____A. the conflict will be settled

_____B. the conflict will start over again

_____C. the conflict will be avoided in the future

_____D. the conflict will be half settled

35. Prejudices can cause a difficult kind of conflict. Which of the following is an example of a conflict that has been caused by prejudice?

_____A. a worker who has no right to be is very bossy causing other workers not to like him or her

_____B. certain workers are treated unfairly by the boss because they are young

_____C. a worker is causing a conflict by "using" other workers in order to look good to the boss

_____D. certain workers are trying to stay away from hard jobs, this is unfairly making more work for others

36. Which of the following sentences is not true of conflict situations on the job?

_____A. on the job, conflict may cause workers to become mixed up, upset, and not willing to help each other

_____B. the best thing to do when conflict happens is to ignore it

_____C. conflict can be a learning experience for workers

_____D. sometimes conflict on the job may end in a fight

37. Which of the following is not true of creativity?

_____A. creativity is something that only a few people have

_____B. creativity does not mean the same thing to everybody

_____C. people can block their own creativity or the creativity of others

_____D. creativity is something potentially given to everybody at birth

38. Which of the following is not a block or "stopper" to a person's creativity?

_____A. criticizing their ideas before they have a chance to develop fully

_____B. writing down all ideas before talking about them

_____C. automatically forgetting about ideas that seem just barely to have anything to do with the problem

_____D. deciding whether an idea is good or bad almost as soon as it is thought of

39. People can use their creative abilities in different work situations. Which of the following is not an example of using creative talent on the job?

_____A. an idea for better use of time and energy

_____B. following directions completely and correctly

_____C. a plan for doing away with a report

_____D. an idea for using office space better

40. Creative thinking may mean questioning ideas that many people accept without thinking about or disagreeing with commonly accepted ways of doing things. This concept is best illustrated by:

_____A. a worker who says that all workers should be allowed to set their own work schedules

_____B. a worker making a window display for the Christmas shopping season using a Santa Claus and toys

_____C. a sales manager of a department store deciding that items which are not selling should be put on sale.

_____D. workers who follow directions correctly

41. Marla has worked in the display department of a large department store for several years. She started working as a helper and has worked her way up to department manager. Marla is a very creative person who seems to always come up with good display ideas. Marla does not listen to any of her workers' ideas since she is sure that the workers can best be used to carry out her ideas. Marla seems to believe:

_____A. everyone has creative ability

_____B. only a lucky few have creative ability

_____C. not letting workers be creative can be harmful

_____D. all workers should be allowed to show their creative abilities

42. John and Martin were fighting about whether workers should try to develop their creative abilities. John said that workers who develop and use creativity can make their jobs more interesting. He also stated that creative workers often come up with ideas that improve the company. Martin, however, said that workers should do their jobs the way they are told to do them. He stated that the only good ideas would come from the person who was hired to think of new ways of doing things. With which of the following would Martin agree?

_____A. creative ideas can come from only a lucky few people

_____B. creative ideas can come from almost anyone

_____C. people can develop their creativity by learning and practice

_____D. by paying attention to what we usually do not pay attention to, we can open our minds to new ways of thinking

43. An organization chart:

_____A. describes all of the jobs in an organization

_____B. shows the formal lines of authority within an organization

_____C. describes the job duties of workers

_____D. shows all the lines of communication within an organization

44. Which of the following is <u>not</u> true of the informal organization?

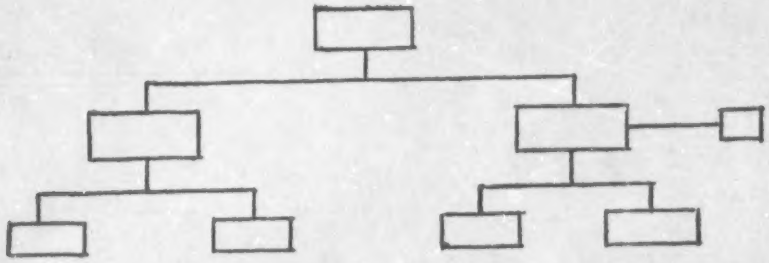
_____A. the informal organization forms because of personal relationships within the formal organization

_____B. the informal organization helps give workers a feeling of belonging and emotional support

_____C. the informal organization can work for or against the formal organization

_____D. the informal organization is always well-defined and easy to identify

45. The following diagram shows:



_____A. the informal organization

_____B. the formal lines of authority within an organization

_____C. all the lines of communication within an organization

_____D. how important each position is to the organization

46. A worker who has the same job as many other workers but who has more influence than the others can be said to have:

_____A. informal authority

_____B. formal authority

_____C. formal responsibility

_____D. a bad attitude

47. Workers can deal with their new jobs faster if they start learning about their job responsibilities and authority right away because:

_____A. it is not important for workers to have clear ideas about their job responsibility and authority

_____B. a formal job description does not give workers information about job responsibility and authority

_____C. trial and error is the best means to use to learn about job responsibility and authority

_____D. knowing about job authority and responsibility can cause workers to make less mistakes and help new workers to be better workers

48. Workers should know about the influence of the informal organization as well as the lines of authority formed by the formal organization. On which of the following is this statement based?

_____A. the formal organization is usually well-defined and easy to pick out, however, many job situations are also influenced by an informal organization that is important to see and understand

_____B. the formal organization as shown by an organization chart, shows all of the lines of communication within an organization. Any important information will come to a worker through the formal organization.

_____C. the informal organization always works against the formal organization. Workers need to know about the informal organization so they can stay away from it and keep their jobs.

_____D. the informal organization has all of the lines of communication within an organization. Any important information will come to a worker through the informal organization.

49. Which of the following is a correct description of the future?

_____A. the future is already fixed

_____B. the future is all a matter of chance

_____C. people are in complete control of their futures

_____D. none of the above descriptions is correct by itself

50. The idea that workers in the future will change jobs ten times before they retire best shows which of the following ideas?

_____A. there will be many people out of work

_____B. technological advances will be slow in coming

_____C. jobs will become out of date very quickly

_____D. workers will no longer take pride in their work

51. Nancy has just graduated from high school and has learned how to run several modern office machines. Which of the following is most likely to happen?

_____A. Nancy will be using the skills she learned for the rest of her working career

_____B. Nancy will have to learn new skills before getting a job because the skills learned are probably already out of date

_____C. Nancy will use the skills she learned as soon as she gets a job but will probably have to learn new skills in the years to come

_____D. Nancy will not be able to use the skills learned at school because the office machines used in school are not as modern as those office machines used in business

52. If around two-thirds of the jobs available in the year 2000 do not exist today, which of the following is probably true?

_____A. two-thirds of the country's workers will be out of work

_____B. people will have to plan for different jobs during their careers

_____C. skills learned in high school will be the same skills used throughout a person's working career

_____D. most workers will work at the same job for all of their careers

53. A group of workers were talking about their plans for the future and the chance of having to go back to school to learn new skills. The boss who was listening to them talk said that he or she would not have to worry about learning new skills because the way to be a boss will never change. Which of the following best describes the boss' belief toward the future?

_____A. in order to deal with changes in their work environment, workers need to be prepared for changes

_____B. plans for the future must be flexible enough to allow workers to make adjustements as changes happen

_____C. planning for the future is needed by some workers but not by all workers

_____D. people who set goals are involved in creating their own future

54. The length of time a worker has worked for a company will not count toward promotions and advancement. If this sentence is correct, which of the following is the reason why?

_____A. those workers who have current knowledge and skills will be valuable to the company

_____B. the retirement age will be raised to seventy-five

_____C. the retirement age will be lowered to forty-five

_____D. seniority will be even more important for job promotions in the future than it is today

APPENDIX C

TEACHERS' OPINIONS OF THE OCCUPATIONAL SURVIVAL SKILLS MODULES

Teachers' Opinions of the Occupational Survival Skills Modules

Type of Classes_____

The following statements are designed to gather your opinions of the Occupational Survival Skills Modules. For each statement, please circle only one response, whether you agree strongly 4, agree 3, disagree 2, or disagree strongly 1, with the statement.

	Agree Strongly	Agree	Disagree	Disagree Strongly
1. All of the Modules were useful in my classes.	4	3	2	1
2. Each Module should be used in its entirety.	4	3	2	1
3. The Modules were more useful when the teacher selected which sessions from a Module to use in class.	4	3	2	1
4. The Modules were appropriate for my students.	4	3	2	1
5. The Modules were too easy for my students.	4	3	2	1
6. The Modules were too difficult for my students to understand.	4	3	2	1
7. My students already knew most of what was included in the Modules.	4	3	2	1
8. The Modules needed to be supplemented with additional materials to meet the objectives of my classes.	4	3	2	1
9. The case studies in the Modules were useful for my students.	4	3	2	1
10. The games in the Modules were useful for my students.	4	3	2	1
11. The discussions among the teacher and other students suggested in the Modules were useful for my students.	4	3	2	1

	Agree Strongly	Agree	Disagree	Disagree Strongly
12. The role-playing activities in the Modules were useful for my students.	4	3	2	1
13. The Modules would be more useful for teachers who have more academically oriented students than I have.	4	3	2	1
14. The Modules would be more useful for teachers who have students who are not as academically oriented as mine.	4	3	2	1
15. After being taught the Modules my studetns are better prepared for work than they were.	4	3	2	1
16. The Modules were more useful to me than textbooks, workbooks, and other instructional materials that I have used in class.	4	3	3	1
17. After having been taught the Modules, my students' attitudes toward employment have become more positive.	4	3	2	1
18. The Module on Motivation for Work was useful for my students.	4	3	2	1
19. The Module on Understanding Self was useful for my students.	4	3	2	1
20. The Module on Interpersonal Relations was useful for my students.	4	3	2	1
21. The Module on Problem Solving was useful for my students.	4	3	2	1
22. The Module on Effective Communication was useful for my students.	4	3	2	1
23. The Module on Coping with Conflict was useful for my students.	4	3	2	1

	Agree Strongly	Agree	Disagree	Disagree Strongly
24. The Module on Creativity on the job was useful for my students.	4	3	2	1
25. The Module on Authority and Responsibility was useful for my students.	4	3	2	1
26. The Module on Adapting and Planning for the Future was useful for my students.	4	3	2	1
27. Overall, the Modules were excellent.	4	3	2	1

Please answer the following questions to make your personal comments regarding the Occupational Survival Skills Modules.

1. To what extent were the Modules useful to you in teaching your classes? Please give reasons for your answer.

2. What kinds of activities (sessions) did you use the most and the least in your classes? Why?

3. What improvements in the Modules would you suggest?

4. Other Comments:

APPENDIX D

STUDENTS' OPINIONS OF THE OCCUPATIONAL SURVIVAL SKILLS MODULES

Students' Opinions of the Occupational Survival Skills Modules

The following statements are designed to gather your opinions of the Occupational Survival Skills Modules. For each statement, please circle only one response, whether you agree strongly 4, agree 3, disagree 2, or disagree strongly 1, with the statement.

		Agree Strongly	Agree	Disagree	Disagree Strongly
1.	I have learned a lot from the Modules that will help me at work.	4	3	2	1
2.	The Modules were difficult for me to understand.	4	3	2	1
3.	I enjoyed the case studies in the Modules.	4	3	2	1
4.	I enjoyed the games in the Modules.	4	3	2	1
5.	I enjoyed the discussions with the teacher and other students.	4	3	2	1
6.	I enjoyed the role-playing activities in the Modules.	4	3	2	1
7.	The Modules were too easy.	4	3	2	1
8.	I already knew most of what was included in the Modules.	4	3	2	1
9.	My attitudes toward employment have changed for the better after being taught the Modules.	4	3	2	1
10.	The Modules were more useful to me than textbooks, workbooks, and other instructional materials that I have used in class.	4	3	2	1
11.	Overall, the Modules were excellent.	4	3	2	1

	Agree Strongly	Agree	Disagree	Disagree Strongly
12. The Modules were very interesting to me.	4	3	2	1
13. The Module on Motivation for Work was useful to me.	4	3	2	1
14. The Module on Understanding Self was useful to me.	4	3	2	1
15. The Module on Interpersonal Relations was useful to me.	4	3	2	1
16. The Module on Problem Solving was useful to me.	4	3	2	1
17. The Module on Effective Communication was useful to me.	4	3	2	1
18. The Module on Coping with Conflict was useful to me.	4	3	2	1
19. The Module on Creativity on the Job was useful to me.	4	3	2	1
20. The Module on Authority and Responsibility was useful to me.	4	3	2	1
21. The Module on Adapting and Planning for the Future was useful to me.	4	3	2	1

Please answer the following questions to make your personal comments regarding the Occupational Survival Skills Modules. (Use the back of this sheet if you need more space.)

1. How useful do you think what you learned from the Modules will be to you at work? Please give a reason for your answer.

2. What kinds of activities in the Modules did you enjoy the most? Why?

3. What kinds of activities in the Modules did you enjoy the least? Why?

4. What improvements in the Modules would you suggest?

APPENDIX E

OBSERVATION GUIDE

Observation Guide

Class_____ Date_____

Number of Students_____ Grade_____

1. Description of classroom equipment:

2. Do students seem to be aware of the purpose of the Modules? YES NO
   Why?

3. Do students seem to enjoy the Modules? YES NO
   a. Are there student initiated questions or all teacher initiated?

   b. Do most of the students participate in the activities? YES NO

4. In what ways did the teacher affect the outcomes of the session(s)?

5. What materials or other means were used to supplement the session(s)?

6. Other comments:

APPENDIX F

TEACHER INTERVIEW FORM

Teacher Interview Form

Class_____ Date_____

1. In what ways were the Modules useful or not useful for you in preparing for class?

2. Which activities or sessions in the Modules are "appropriate" or "not appropriate" for your students? Why? Why not?

   a) Reading level

   b) Interest - relevance

   c) Understand concepts

   d) Special characteristics of students

3. Which aspects of the Modules do the students seem to enjoy and not enjoy? Why? Why not?

4. What kinds of materials do you use to supplement the Modules, if any? Why? Why not?

5. Which types of activities in the Modules do you think are most useful and least useful in teaching your classes? Why?

APPENDIX G

STUDENT INTERVIEW FORM

Student Interview Form

Class_____ Date_____

Grade_____ Number of Students Interviewed____

1. Student(s) Background and Interests:

2. Perceived Usefulness of Modules: What have you learned from the Modules if anything, that you think will be useful to you in the future or now? Why?

3. Understanding of Concepts: What do you think the Modules are trying to teach?

4. Complexity and Detail (Reading Level, Directions, etc.): What parts of the Modules are difficult for you to understand? Why?

   What parts of the Modules are too easy for you? Why?

5. Enjoyment of Using Modules: Overall, do you enjoy using the Modules in class more or less than other materials? More, No Difference, Less Why?

   What parts of the Modules do you enjoy the most, least? Why?

VITA

James Allen Leach was born in East Chicago, Indiana, on November 25, 1947. His elementary education was received in Hammond, Indiana. He graduated from Highland High School, Highland, Indiana, in 1965.

He attended Hanover College, Hanover, Indiana, where he received the Bachelor of Arts degree with a major in Business Administration in 1969. After serving two years in the United States Army, he accepted a retail management position with the J. C. Penney Company in Waukegan, Illinois.

He attended the University of Illinois at Urbana-Champaign, where he received the Master of Education degree with a major in Business Education in 1974 and the Doctor of Philosophy degree in Vocational and Technical Education in 1978.

His teaching experience has included high school, community college, and university teaching in business and vocational education. He has conducted a number of workshops for teachers throughout the State of Illinois on teaching small business ownership and management and has worked with community college teachers and Chicago Public School teachers on methods of teaching occupational survival skills. Management and teaching experience totals over six years.

While pursuing work at the University of Illinois, he held the position of Associate Director of the project Methods and Procedures for Teaching Small Business Ownership and Management (1975-76) and Research Assistant for the project Methods and Materials for Teaching Occupational Survival Skills (1977-78). These projects were funded by the Department of Adult, Vocational and Technical Education, Illinois Office of Education.

During 1976-77 he served as the Assistant Director of the Small Business Institute, sponsored by the United States Small Business Administration, at the University of Illinois.

His professional affiliations include: American Vocational Association, Illinois Vocational Association, National Business Education Association, and Illinois Business Education Association.